

FEATURES:

5'UTR: 1 - 180
Start Codon: 181
Stop Codon: 2116
3'UTR: 2119

Homologous proteins:

Top 10 BLAST Hits

	Score	E
gi 10440202 dbj BAB15672.1 (AK027148) unnamed protein product ...	940	0.0
gi 4507277 ref NP_003148.1 serine/threonine kinase 2; Serine/t...	232	1e-59
gi 7522642 pir JC7122 serine (threonine) protein kinase (EC 2....	226	1e-57
gi 6754822 ref NP_035979.1 NIMA-related expressed kinase 4 [Mu...	226	1e-57
gi 2570047 emb CAA70436.1 (Y09234) MSTK2S kinase-like protein ...	226	1e-57
gi 1709251 sp P51954 NEK1_MOUSE SERINE/THREONINE-PROTEIN KINASE...	225	2e-57
gi 9297022 sp Q9R0A5 NEK3_MOUSE SERINE/THREONINE-PROTEIN KINASE...	220	4e-56
gi 6754820 ref NP_035978.1 NIMA-related expressed kinase 3 [Mu...	218	2e-55
gi 1709253 sp P51956 NEK3_HUMAN SERINE/THREONINE-PROTEIN KINASE...	206	1e-51
gi 9294413 dbj BAB02494.1 (AB025629) kinase-like protein [Arab...	203	6e-51

BLAST to dbEST:

	Score	E
gi 9334037 /dataset=dbest /taxon=960...	1132	0.0
gi 1471842 /dataset=dbest /taxon=9606 ...	831	0.0
gi 1690632 /dataset=dbest /taxon=9606 ...	749	0.0
gi 2017477 /dataset=dbest /taxon=9606 ...	385	e-104
gi 2070694 /dataset=dbest /taxon=9606 ...	351	4e-94
gi 10194753 /dataset=dbest /taxon=960...	337	5e-90

EXPRESSION INFORMATION FOR MODULATORY USE:

library source:

Expression information from BLAST dbEST hits:

gi|9334037 Uterus
gi|1471842 Fetal heart
gi|1690632 Colon
gi|2017477 Pineal gland
gi|2070694 Testis
gi|10194753 Nervous_tumor

Expression information from PCR-based tissue screening panels:

Human Brain
Human fetal brain
Human heart
Human Kidney
Human uterus
Human placenta
Human small intestine
Human testis
Human skeletal muscle

1 MLKFQEAARC VSGSTAISTY PKTLIARRYV LQQKLGSGSF GTVYLVSDKK
 51 AKRGEEKVL KEISVGELNP NETVQANLEA QLLSKLDHPA IVKFHASFVE
 101 QDNFCIITEY CEGRDLDDKI QEYKQAGKIF PENQIIEWFI QLLLGVDYMH
 151 ERRILHRDLK SKNVFLKNNL LKIGDFGVSR LLMGSCDLAT TLTGTPHYMS
 201 PEALKHQGYD TKSDIWSLAC ILYEMCCMNH AFAGSNFLSI VLKIVEGDTP
 251 SLPERYPKEL NAIMESMLNK NPSLRPSAIE ILKIPYLDEQ LQNLNCRYSE
 301 MTLEDKNLDC QKEAAHIINA MQKRIHLQTL RALSEVQKMT PRERMRLRKL
 351 QAADEKARKL KKIVEEKYEE NSKRMQELRS RNFQQLSVDV LHEKTHLKGM
 401 EEKEEQPEGR LSCSPQDEDE ERWQGREEES DEPTLENLPE SQPIPSMDLH
 451 ELESIVEDAT SDLGHEIPE DPLVAEEYYA DAFDSYCVES DEEEEEIALE
 501 RPEKEIRNEG SQPAYRTNQQ DSDIEALARC LENVLGCTSL DTKTITMAE
 551 DMSPGPPIFN SVMARTKMKR MRESAMQKLG TEVFEEVYNY LKRARHQNAS
 601 EAEIRECLEK VVPQASDCFE VDQLLYFEEQ LLITMGKEPT LQNHL

FEATURES:

Functional domains and key regions:

[1] PDOC00001 PS00001 ASN_GLYCOSYLATION

N-glycosylation site

Number of matches: 2

1 71-74 NETV
 2 598-601 NASE

[2] PDOC00005 PS00005 PKC_PHOSPHO_SITE

Protein kinase C phosphorylation site

Number of matches: 5

1 47-49 SDK
 2 273-275 SLR
 3 329-331 TLR
 4 340-342 TPR
 5 372-374 SKR

[3] PDOC00006 PS00006 CK2_PHOSPHO_SITE

Casein kinase II phosphorylation site

Number of matches: 15

1 64-67 SVGE
 2 84-87 SKLD
 3 97-100 SFVE
 4 211-214 TKSD
 5 251-254 SLPE
 6 277-280 SAIE
 7 302-305 TLED
 8 340-343 TPPE
 9 414-417 SPQD
 10 454-457 SIVE
 11 490-493 SDEE
 12 522-525 SDIE
 13 538-541 TSLD
 14 547-550 TMAE
 15 600-603 SEAE

[4] PDOC00007 PS00007 TYR_PHOSPHO_SITE

Tyrosine kinase phosphorylation site

361-368 KKIVEEKY

[5] PDOC00008 PS00008 MYRISTYL

N-myristoylation site

Number of matches: 2

1 38-43 GSFGTV
 2 510-515 GSQPAY

 [6] PDOC00299 PS00342 MICROBODIES_CTER
 Microbodies C-terminal targeting signal

 643-645 NHL

 [7] PDOC00100 PS00108 PROTEIN_KINASE_ST
 Serine/Threonine protein kinases active-site signature

 154-166 ILHRDLKSKNVFL

Membrane spanning structure and domains:

Helix	Begin	End	Score	Certainty
1	231	251	0.781	Putative

BLAST Alignment to Top Hit:

>gi|10440202|dbj|BAB15672.1| (AK027148) unnamed protein product [Homo sapiens]
Length = 463

Score = 940 bits (2404), Expect = 0.0
Identities = 463/463 (100%), Positives = 463/463 (100%)
Frame = +1

Query: 727 MGSCDLATTLTGTPHYMSPEALKHQGYDTKSDIWSLACILYEMCCMNHAFAGSNFLSIVL 906
MGSCDLATTLTGTPHYMSPEALKHQGYDTKSDIWSLACILYEMCCMNHAFAGSNFLSIVL
Sbjct: 1 MGSCDLATTLTGTPHYMSPEALKHQGYDTKSDIWSLACILYEMCCMNHAFAGSNFLSIVL 60

Query: 907 KIVEGDTPSLPERYPKELNAIMESMLNKNPSLRPSAIEILKIPYLDEQLQNLMCRYSEMT 1086
KIVEGDTPSLPERYPKELNAIMESMLNKNPSLRPSAIEILKIPYLDEQLQNLMCRYSEMT
Sbjct: 61 KIVEGDTPSLPERYPKELNAIMESMLNKNPSLRPSAIEILKIPYLDEQLQNLMCRYSEMT 120

Query: 1087 LEDKNLDCQKEAAHIINAMQKRIHLQTLRALSEVQKMTPRERMRLRKLQAADEKARKLKK 1266
LEDKNLDCQKEAAHIINAMQKRIHLQTLRALSEVQKMTPRERMRLRKLQAADEKARKLKK
Sbjct: 121 LEDKNLDCQKEAAHIINAMQKRIHLQTLRALSEVQKMTPRERMRLRKLQAADEKARKLKK 180

Query: 1267 IVEEKYEENSKRMQELRSRNFQQLSVDVLHEKTHLKGMEKEEQPEGRSLSCSPQDEDEER 1446
IVEEKYEENSKRMQELRSRNFQQLSVDVLHEKTHLKGMEKEEQPEGRSLSCSPQDEDEER
Sbjct: 181 IVEEKYEENSKRMQELRSRNFQQLSVDVLHEKTHLKGMEKEEQPEGRSLSCSPQDEDEER 240

Query: 1447 WQGREEESDEPTLENLPESQPIPSMDLHELESIVEDATSDLGYEIPEDPLVAEEYYADA 1626
WQGREEESDEPTLENLPESQPIPSMDLHELESIVEDATSDLGYEIPEDPLVAEEYYADA
Sbjct: 241 WQGREEESDEPTLENLPESQPIPSMDLHELESIVEDATSDLGYEIPEDPLVAEEYYADA 300

Query: 1627 FDSYCVESDEEEEEIALERPEKEIRNEGSQPAYRTNQQSDIEALARCLENVLGCTSLDT 1806
FDSYCVESDEEEEEIALERPEKEIRNEGSQPAYRTNQQSDIEALARCLENVLGCTSLDT
Sbjct: 301 FDSYCVESDEEEEEIALERPEKEIRNEGSQPAYRTNQQSDIEALARCLENVLGCTSLDT 360

Query: 1807 KTITTMADMSPGPPIFNSVMARTKMKRMRESAMQKLGTEVFEEVYNYLKRARHQNSEA 1986
KTITTMADMSPGPPIFNSVMARTKMKRMRESAMQKLGTEVFEEVYNYLKRARHQNSEA
Sbjct: 361 KTITTMADMSPGPPIFNSVMARTKMKRMRESAMQKLGTEVFEEVYNYLKRARHQNSEA 420

Query: 1987 EIRECLEKVVPQASDCFEVDQLLYFEEQLLITMGKEPTLQNLH 2115
EIRECLEKVVPQASDCFEVDQLLYFEEQLLITMGKEPTLQNLH
Sbjct: 421 EIRECLEKVVPQASDCFEVDQLLYFEEQLLITMGKEPTLQNLH 463

>gi|4507277|ref|NP_003148.1| serine/threonine kinase 2;
Serine/threonine protein kinase-2 [Homo sapiens]
>gi|1709347|sp|P51957|STK2_HUMAN SERINE/THREONINE-PROTEIN
KINASE NRK2 (SERINE/THREONINE KINASE 2)
>gi|7427997|pir||I78885 serine/threonine-specific protein
kinase (EC 2.7.1.-) STK2 - human
>gi|348245|gb|AAA36658.1| (L20321) protein
serine/threonine kinase [Homo sapiens]
Length = 841

Score = 232 bits (586), Expect = 1e-59
Identities = 114/263 (43%), Positives = 174/263 (65%), Gaps = 2/263 (0%)
Frame = +1

Query: 265 YVLQQKLGSGSFGTVYLVSDKKAKRGEELKVLKEISVGELNPNETVQANLEAQLLSKLDH 444
Y + +G GS+G V LV K +R + V+K++++ + E A EAQLLS+L H
Sbjct: 6 YCYLRVVGKGSYGEVTLV---KHRRDGKQYVIKKLNLNRNASSRERRAAEQEAQLLSQLKH 62

Query: 445 PAIVKFHASFVEQDNFC-IITEYCEGRDLDDKIQYKQACKIFPENQIIEWFIQLLLGVD 621
P IV + S+ D I+ +CEG DL K++E K G++ PENQ++EWF+Q+ + +
Sbjct: 63 PNIVTYKESWEGGDGLLYIVMGFCEGGDLRYKLKEQK--GQLLPENQVVEWFVQIAMALQ 120

Query: 622 YMHERRILHRDLKSKNVFL-KNNLLKIGDFGVSRLMGSCDLATTLTGTPHYMSPEALKH 798
 Y+HE+ ILHRDLK++NVFL + N++K+GD G++R+L CD+A+TL GTP+YMSPE +
 Sbjct: 121 YLHEKHILHRDLKTQNVFLTRTNIKVGDLGIARVLENHCDMASTLIGTPPYMSPELFSN 180

Query: 799 QGYDTKSDIWSLACILYEMCCMNHAFAGSNFLSIVLKIVEGDTPSLPERYPKELNAIMES 978
 + Y+ KSD+W+L C +YEM + HAF + S+V +I+EG P++P Y EL ++ +
 Sbjct: 181 KPYNYKSDVWALGCCVYEMATLKHAFAKDMNSLVYRIIEGKLPAMPRDYSPELAELIRT 240

Query: 979 MLNKNPSLRPSAIEILKIPYLDEQL 1053
 ML+K P RPS IL+ PY+ Q+
 Sbjct: 241 MLSKRPEERPSVRSILRQPYIKRQI 265

>gi|7522642|pir||JC7122 serine (threonine) protein kinase (EC
 2.7.1.37) 2 - mouse >gi|4138209|emb|CAA11072.1|
 (AJ223071) serine/threonine kinase protein
 MSTK2L, long-form [Mus musculus]
 Length = 792

Score = 226 bits (569), Expect = 1e-57
 Identities = 135/405 (33%), Positives = 227/405 (55%), Gaps = 21/405 (5%)
 Frame = +1

Query: 265 YVLQQKLGSGSFGTVYLVSDKKAKRGEELKVLKEISVGELNPNETVQANLEAQLLSKLDH 444
 Y + +G GS+G V LV K +R + V+K++++ + E A EAQLLS+L H
 Sbjct: 6 YCYMRVVGSGSYGEVTLV---KHRRDGKQYVIKKLNLNRNASSRERRAAEQEAQLLSQLKH 62

Query: 445 PAIVKFHASFVEQDNFC-IITEYCEGRDLDDKIQEYKQAGKIFPENQIIEWFIQLLLGVD 621
 P IV + S+ D I+ +CEG DL K++E K G++ PE+Q++EWF+Q+ + +
 Sbjct: 63 PNIVTYKESWEGGDGLLYIVMGFCEGGDLRYKLKEQK--GQLLPESQVVEWFVQIAMALQ 120

Query: 622 YMHERRILHRDLKSKNVFL-KNNLLKIGDFGVSRLMGSCDLATTLTGTPHYMSPEALKH 798
 Y+HE+ ILHRDLK++NVFL + N++K+GD G++R+L D+A+TL GTP+YMSPE +
 Sbjct: 121 YLHEKHILHRDLKTQNVFLTRTNIKVGDLGIARVLENHGDMASTLIGTPPYMSPELFSN 180

Query: 799 QGYDTKSDIWSLACILYEMCCMNHAFAGSNFLSIVLKIVEGDTPSLPERYPKELNAIMES 978
 + Y+ KSD+W+L C +YEM + HAF + S+V +I+EG P +P+ Y EL ++ +
 Sbjct: 181 KPYNYKSDVWALGCCVYEMATLKHAFAKDMNSLVYRIIEGKLPPMPKVYSTELAEELIRT 240

Query: 979 MLNKNPSLRPSAIEILKIPYLDEQLQNLNLCRYSEMTELEDKNLDCQKEAAHIINAMQKRIH 1158
 ML++ P RPS IL+ PY+ + + T ++ +C A + + ++
 Sbjct: 241 MLSRRPEERPSVRSILRQPYIKHHISLFLEATKAKTSKNNVKNCDRAKPAVAVVSRKEE 300

Query: 1159 LQTLRALSEVQKMTPRERMRLRKLQAADEKARKLKKIVE-----EKYEENSKRMQELRS 1320
 T +V PR ++K +K V+ E Q++ +
 Sbjct: 301 SNT-----DVIHYQPRSEGSALHVMGEDKCLSQEKPVDIGPLRSPASLEGHTGKQDMNN 355

Query: 1321 -----RNFQQLSVDVL--HEKTHLKGMEKEEQPEGRLLSCSPQD-----EDEERWQGRE 1461
 ++++D+L + +E QP+ + D ++ER QG
 Sbjct: 356 TGESCATISRINIDILPAERRDSANAGVVQESQPDHDAADEVDSDQCSISQEKERLQNGT 415

Query: 1462 EESDEP 1479
 + SD+P
 Sbjct: 416 KSSDQP 421

Hammer search results (Pfam):

Model	Description	Score	E-value	N
PF00069	Eukaryotic protein kinase domain	290.0	3e-83	1
CE00022	CE00022 MAGUK_subfamily_d	25.8	1.6e-07	1
CE00359	E00359 bone_morphogenetic_protein_receptor	20.7	3.7e-05	1
CE00031	CE00031 VEGFR	17.6	2.1e-05	1

CE00203	CE00203	ERBB_RECEPTOR	16.1	0.0004	2
CE00220	E00220	ACTIVIN_RECEPTOR	8.3	0.082	1
CE00334	E00334	urotrophin_receptor	3.4	0.48	2
CE00204	CE00204	FIBROBLAST_GROWTH_RECEPTOR	1.9	6.1	1
CE00549	CE00549	NGFR	0.7	6.7	1
CE00292	CE00292	PTK_membrane_span	-7.9	1e-08	1
CE00287	CE00287	PTK_Eph_orphan_receptor	-16.2	3.4e-07	1
CE00286	E00286	PTK_EGF_receptor	-65.6	4e-07	1
CE00291	CE00291	PTK_fgf_receptor	-67.6	7.7e-05	1
CE00290	CE00290	PTK_Trk_family	-73.1	1.7e-10	1
CE00288	CE00288	PTK_Insulin_receptor	-203.0	0.0037	1
CE00016	CE00016	GSK_glycogen_synthase_kinase	-232.8	0.00088	1

Parsed for domains:

Model	Domain	seq-f	seq-t	hmm-f	hmm-t	score	E-value
CE00203	1/2	35	44 ..	746	755 ..	-2.5	60
CE00334	1/2	77	117 ..	588	628 ..	0.2	4.7
CE00220	1/1	154	170 ..	340	356 ..	8.3	0.082
CE00549	1/1	156	180 ..	706	731 ..	0.7	6.7
CE00334	2/2	156	180 ..	679	704 ..	3.2	0.57
CE00203	2/2	138	182 ..	845	890 ..	15.9	0.00046
CE00359	1/1	154	204 ..	272	327 ..	20.7	3.7e-05
CE00022	1/1	141	217 ..	129	211 ..	25.8	1.6e-07
CE00204	1/1	199	217 ..	706	724 ..	1.9	6.1
CE00031	1/1	134	225 ..	1047	1141 ..	17.6	2.1e-05
CE00291	1/1	29	282 ..	1	285 []	-67.6	7.7e-05
CE00290	1/1	30	285 ..	1	282 []	-73.1	1.7e-10
CE00287	1/1	29	285 ..	1	260 []	-16.2	3.4e-07
CE00292	1/1	29	285 ..	1	288 []	-7.9	1e-08
CE00286	1/1	29	286 ..	1	263 []	-65.6	4e-07
CE00288	1/1	29	287 ..	1	269 []	-203.0	0.0037
PF00069	1/1	29	287 ..	1	278 []	290.0	3e-83
CE00016	1/1	3	350 ..	1	433 []	-232.8	0.00088

```

1 GCTAAAGAGG GCTGGGACGT ACGTTCCGAA ATGGCTGCTG TCAGGCTAGG
51 AAAGCTTGGC CCGCCGGTCC TCCTCTGCTT TCTCCGCCTA CTTGGGTCCG
101 CGAACACTTC CGCCTTGGTG CCGCCTCGCC CCGACTTCCC AGTATGCCCC
151 GCGCCGTCTC CCTGGCCACG GTTCCAAACA GCCGTGGCCC GCGGTGTCTG
201 GCGCTCGGTG GGTGTGGTTG CCCCTAGTTT GAGGCCTGCC CGATTACCCG
251 CAAGACTTGG GCAGCCCCGG GCGCCGCTCC GACCACGACA GGGAAAGGTA
301 AAGCGAACTG TGCTCCTTGG GGCTAGCCAG GCTCCCCTGC GAGGGGGAAG
351 GTAATGGTTT CAAGCTGCCC GGGCTGGGTT CCGAATCTCT AGGACGCCAT
401 GGCTGCGATC TCCTCGCTTT CCTGGACGTC TTACCTCCGG ATGTACTCCA
451 GTCTCAGTGC CCTCAATAA ACGTTAACCT GCTTTGCCAA AATGTAAATG
501 TTTAAAAAGG TGAAGAAGCA AGGAATTGTT CGTTTTACCT TAAGGTTAAG
551 ATTTACTTTT AAGGTAGATT TGTGCTGTAG CAGAACTGG TGACAAATTG
601 CCTTCCTCTT ATTACCTGGG AAGATAACTA CTGGTTTTCA ACTTGTGATA
651 AATACTCCTT CCGTTGTCTT TTGCCCCCAG CCAGATCTGT TTCACCGAGA
701 AGGGGTAGTT TGCACAAGGT AGTAACTTTC TCCAAGTTCC CATCTAGCTT
751 TCTTAACATA CCTTTTTTCT CTCCTTTGGG CGGCAGTTGA TCTGCTGGAC
801 ACTTACTTGC CTTAACAAGG TTTGTTAAAC ACCTAGTATA TGCCAGGAGG
851 TATGCCAGGG ATTGGGGATG CAGAAATAAA GAAGATGTGT TCGCAGTGCC
901 CAAGTTCACT CAAACCTCGA GGGGGAGCGT GTTGTCAAGT GAACAGATAG
951 TTCTAGAATC TAGACAATGC GACACATTCT TGGGTAGGTT TATGGTTGCG
1001 CAGAGGAGAC TAATGGAATG GATGACCTAA AAGTGGACTG GGATGGGGGT
1051 GGCAGGGCTG AGTCTGTGAG GGTGGGCGGG AGGGAACCTA GTCCCAGAGT
1101 CTTCTGCAGC CTGGACCAGA CTACTTAAGC ACTGCTGGGT TTAGACTGTC
1151 CTTTAAAATA AGAGCCGCTA GAAGTGAAGT TCTCATTCTG TCCGTCCCTA
1201 ATTCTGTCTT TCTCTAAAAG GAACCTTAAT CTCATCTTTA AAATAAGGAG
1251 AATTACTGAG TGACCTGAAG GACCCTTTTC AGCTGGAAAG TCTGTAAGTC
1301 CATATATTTT TTTGAACAGC TTAGTATGGC CAGACGGCAT CACTTTTATG
1351 ACAGTGAAGG GGAAGTAAAA ACAAAAGGTA TATTTAGAGG CCTGCTCTCT
1401 AGTTGTTTTT CCAGCAGATT TTAATAACGT GTCTTTGGAA GGGAAAAGAA
1451 AAAGCTGGTA ACTAATCTCA CTGGTATTAG GTACAACCTA ACTGATTCAT
1501 ACATTTTAAG AAGGAAAATG TTGTAAATGG GCATTTACTT ATGTTCTGTT
1551 TTGAGGATTT TTGTGGTTAA TTGCCCTAGT AGTTTTTGTG GTTGACGGAC
1601 ACCACCACGT AAAGCCCATT GACCATCCTT AAAAAGTAGG TTTTTGTCTC
1651 ATAGCTTTGG AATTGTTGAA TATGAAAACC TAACTTCAAG GTGTAGGCAG
1701 TTTTCAATTT AAAATGTTAT TTCTATATAG ATTTAAAACA AAAGCACACT
1751 TTTCTTGATA ACTAACAAAA CATTTAACAT TCTGATGAAA TAAAAGTGAT
1801 TTTACTTTGT ACCTACTCAT ATGAAACAGT CCTGCCTTTC TTTTTTTTGT
1851 TTTTGTTTTT GTTTTTGT TTGTTGAGAT GGAGTCTTAC TCTGTCGCCC
1901 AGGCTGGAGT GCAGTGGCGA GATCTCACTG CAAGCTCCGC CTCCTGGGTT
1951 CACGCTATTC TCCTGCCTCA GCCTCCCGAG TAGCTGGGAC TGCAGGCGCC
2001 CGCTACAATG CCCGGCTAAT TTTTTTGTAT TAGACGGGGT TTCACCGTGT
2051 TAGCCAGGAT GGTCTCGATC TCCTGACCTC GTGATCCGCC CGCCTTGGCC
2101 TCCCAAAGTG CTGGTACTAC AGGCGTGAGC CACTGCGCCC GGCCTAAACA
2151 GTCCTGCCTT TCATAACTGC CACGTCTCAT AGCTCCCTGA GGAATTACAG
2201 ATTTATCTGT AGCATTTATA TTCCACTGAC ATTTAAATGGG ATTTTAGGTT
2251 TGAATTGAAT TTGTAACCTC TCCTGTTTTT AATCCAGAGA GATTATACAC
2301 AATGTGTACA ATAGGAACTT CAGAACTAG AATTGCTGA GCATGGGAAA
2351 AAATTCTCAA TCCTTATCCT TCTTTGCATC TGTCTTAATA AATACAAAAA
2401 CTGTGGTTTA ACATCTACAG AAAAAAATAA ATCTAAAGGA AACAGCACCT
2451 GCTAATTCCT TGTTTTAATCC TAACTCACTC TTTGTAAACC AAAGTAAATA
2501 TAAGGTGAGA AGAGGGCATT ACAAAAAGGT TGATGCAGAT GTATAGATTT
2551 AAGGAGGTGA TAATGTTCTT GTATTTGGAT TCTTTTATAA GTAGTTGGGG
2601 AGTATAAATC TTAAATAAAT GAAGAGATTG CTCATTGTAA AACAGATGTA
2651 CATCCAGAAA ATTTGTGGAA AGTTGGCTAT AATTCACCTC TGCCAAATTT
2701 CAATGTACAA AGGGAGGCTC TTCCTGTGAA AGATTGCCTT CTGGAATTTG
2751 TGGTATCTCT ACCTTTTAAC ATTTTTTTTC AAGTTGTTAA CCAATATGGT
2801 GTCAGTCTGC TGATCAAGGT GCAGATATCA CTGCACTTAA CACTTTTTGT
2851 TAGACATCGT TTAGCAACCT TTAGACCTGA TCTTTTAACT TTTTATCTTT
2901 AAGGAACTGA CCAACACTGG ATGAATTTGA CCATTTCTTA GGAGACTGGA
2951 ATGTTAAGTT TCTATAAATG AATGAACCAG TTCTCTCTTG TTTGGAGCAA
3001 TGCTGAAATT CCAAGAGGCA GCTAAGTGTG TGAGTGGATC AACAGCCATT
3051 TCCACTTATC CAAAGACCTT GATTGCAAGA AGATACGTGC TTCAACAAAA
3101 ACTTGGCAGT GGAAGTTTTG GAACTGTCTA TCTGGTTTCA GACAAGAAAG

```

FIGURE 3, page 1 of 141

```

3151 CCAAACGAGG AGAGGAATTG TAAGTAAAAG TGCTTCCTAT GAATCTTGAG
3201 TAGGCTGCTT TTTGTTTGCA GGTCTTAGCT GATTAGGAAC ATGGAGCAGG
3251 CCAGGTATGG TGGCTCATGC CTGTAATCCC AGCACTGTGG GTGGCCAAGG
3301 TTGGCAGATC ACTTGAGCG AGGAGTTCAA GACCAGCCTG GCCAACATGG
3351 CAAAACCCCTG TCTCTACTAA AAATACAAAA ATTAGCCAGG CAGGGTGGTA
3401 CATGCCTGTG ATCTCAGCTA CTTGGAGGTT GAGGCACAAG AATTGCTTAA
3451 ACCCAGGAGG TGGAGGTTGC AGTGAGCCGA GATCATGCCA CTGCCCTCCA
3501 GCCTGGGCAA CAGAGCAAGA CTGACAAAAA AAAAAAAGA ACATGGAGTA
3551 ATGTCCACTT TGCTCTTTAT ACCAAAGCAA GTATTTTATA AATATAGGTA
3601 AGCTCCCTAA TTAATCTTTC ATATTAGGTT TAAAGGCATT TCAGCAGGTG
3651 AATAAAGTAT CCAAATGACC TAAAGAAGGG AGCTAGAAAT GGGATAGATT
3701 ATGTGAAAAT AAGATGTTTG GGCATGCCAC AGTCTCAGTG ACAATATTAC
3751 TTCCACTTAA CTTGATTGGA ACTTCTTGAA TGAGAAAATA AGAATTGTTC
3801 ATAATGACTA TTTTGTAGAA TGTTACAAAA TGCAAAATAA CAATTATTCA
3851 CATTTGAGAT GAATAGGGTA TACCAAAGAA AGTAACAGTA TTAATTTTCT
3901 TTGGGCTTTC CATGGCGAGG ATTTTCAAAT TCCGTAGTCA GAAAGCTGTC
3951 AGATTAAACA CTTAAACCAA ATGGACACTC CTATTTAAAA TTAGCTTATG
4001 TTAATGACCC CTTGTGACC TCGTCTCTTT TGATTATGAT CGGACCCTCT
4051 ACACCTTTCAT AGTAGAGAAA AACTCTTAAT AGCTTCAGAC AGTACCTCCC
4101 TTACAGATAA ACCTCTAGTT TTTGTGTAAG GTTTTTTTAA TTTGCTGCAG
4151 TGGAAAGTAA GTTGGAACTG AAGTTAGGGT AAGAAACTTG CCTATCAGAA
4201 ACACAGGAGG AACAGAAAGC AGAAGGAAGA ATGATCCAAG ATATCAGCCC
4251 TTAACCCAG AAGACCACAT TTTTCATCCA TAATATATTG TTTTCTCTTA
4301 AGGTTTTAAG GCTACTCTAA GTTCTTCCAG CTTTTGCCTA TTGGATATTT
4351 AAGAGTGGAT TTAATATCAG TGTGATAAAC ACTTTTCTAC ATCTTCATAG
4401 GTCATAGGAA TTGTAAAGGT AAATGTTAGT GATGTTACTA CTTTGTTTTA
4451 AAACCAATC TTTTAAATGG TCTCTGTCCA GAATTTTAA AAGCTGTAAT
4501 TATCTAGAAT TTATAGTTTT TAGTCAATTT CTACATGAGG GATGATAAAA
4551 GAGCTGGCAT TTTTCTGATG TCCTTAGAAG ATGCATTATG ATTCCTGCTG
4601 AAAAAGATTT TTTCTCTTTA ATCCTAGAGG TGCTCTCTA GCCATTTAGA
4651 ATAGAATGAT AAATTTCTGA CAATTATTAG ATAACCTTTA TGGAAACATT
4701 GAGAGTAAGA CCTAAACCAG ACCCAGTACT TCTAAAAACT AACTGTAGG
4751 ATCATATCCA ATTTTGGTTT CTTCAACTAA TGAGGAATAT GAAAAATTTT
4801 AAGATAATTC ACAGGAGGAC TAAAAAGTTA ATTAAAGGA TGTAAAATAA
4851 GATGTATGAA GATCAAACTT GAAACCTTTA GACTTAAGAT AATAAGTGAG
4901 TGGAGAGAGT GTGTTTGTA TCAGCGGGGA AGAGAGAGAG AAAGAGAATG
4951 AGAGAGAAGA AAGGGGGCTG GGGCTGGTTG GTTGGCAAGT GATTGTGTAG
5001 TGATCTTTCT TGTACCTGAA CCAATCTTAA AAAACACAT GACTGGAGCT
5051 GAAGATGGCA GACATGTTTG TGGAATGAAT CCAGTGGTGA GGATAACGGA
5101 CAAAAATCAT TTGGCACCAG AAGGTCTAGT CCACAATCTC TGGGAAAGGA
5151 ATCATTTCATC ATCAGAATCT AAAACATATT GCATACTGGC CACATGTGGC
5201 TTTTCAGATG TTTTGTGTTG GCCTGGGTAG TGTTCCTTT TAGTAAATTA
5251 ATCAGTTTTT TTTTGTGTTG AGGCGGAGTC TCACTCTGTC TCCCAGGCTG
5301 AAGTGCAGTG GCACGATCTT GGCTCACATG AACCTCCACC TCCCAGGTTC
5351 AAGTGATTCT CCCACCTCAG CCTCCCAAGT AGCTGGGATT ACAGGCATGC
5401 ACCACCACAC CTGGCTAATT TTTGTATTTT TAGTAGAGAC AGGGTTTCAC
5451 CATGTTGGCC AGGCTGGTCT TGAACCTCTG ACCTCAGGTG ATCCTCTTGC
5501 CTTGGCCTCC CAAAGTGCTG AGATTACAGG CGTGAGCCAT CGCGCCTGGC
5551 CAGTAGTCAG TATTTTAAAG TGAGCAGCTC ATATAAATTG AGCATTTTAT
5601 CTTTTCTAGA AAAAAAAGAT TTGGGAACGT TTGCTAACAT CAGTTCCTGT
5651 GTAGCCACAA TGGACTGCTA AAGCTAGGCA GCAGCTACTC CCTTAGACAA
5701 ATTCCGTATT CTCCAGTTAG CCACATTCCT ACCTCTCCTT ACTGTCTCTG
5751 GCATACAGCT GCATCACACC TTTCCACTAC GTGCCGACCT TTGTAGACAA
5801 TTGCTTTTGG AATTATTTGC TAAAATCAGA AAAAAGTATG AATGTGACTA
5851 CTCACAAAAT TCTAGAAATG TGTAATAGAA ACAGAGCAGT ATGGTGTGAT
5901 TGTTAAATATC CCAGCTTTGG ATGTGAACAA AAAGTAAAGC CAGGCCTGTT
5951 CTTAATGTGA AGTCTACATT CTGTACATTC CTAATCTGAG CTTTGGTTTT
6001 CTTATCTTTA AAATGAGTAT AATACCTCAT AGGATTGTAA TAAGAATACG
6051 ATATCTGCCT ATTTATATAA GATTTAGATG TCACATTGCC TTGCTCATAA
6101 TTATTCCTCA AAAACAGCAC AGATTACCTT TAATTATATA CAATCCAAGT
6151 TAAAAGAATA ATTAAGGAA GCCTAAGAAA ACTTTAGCTA ATTACCAACC
6201 AATGACTGCA ATTTGAAACT TCTAATAAAC GGAAGGTTTT TCTGGATTAC
6251 TTTTAAATGA GAAAAATTTT CCAAATAAAC CAACTTGAAA CCAGGCATGT

```

FIGURE 3, page 2 of 141

6301	AATTTAAAAA	ACTTATTCAA	GATGTGTCCT	GAGATTGTAA	CAATCTGTT
6351	GTCATCTTTT	ATATCTCTGT	GGCTGTCCAA	AATAAATTGG	TTCTCAGAAT
6401	GTGAACCTTT	TAGCTAAGAT	ATCAATTCAT	CAGTGATTGT	TATGTTTAAT
6451	GCATGTATGA	GGCAGGAAAC	TAAACTCTTT	TTTTTTTGTG	TTGATFACTGA
6501	ACCATTAGTT	TTGTGAGCAA	GCACATTATT	AGCACTACAT	ATTGTCCAA
6551	CAATTGACT	AGATAAGGTT	TTAAATTATG	CTTTACTACT	TAGACCACAA
6601	ACATAAGGAA	TTGGTTAATG	TTAGAGGTGG	CTAGAAGATG	AATACTTTAT
6651	ACAGACTTCT	ATAATGGTAT	GAATGCTATT	CCTTCAACAC	ATCAGAATAG
6701	ATATGACTTC	CCTTTTTTGT	TTGCAGATAC	ACCCTTAACT	TTTTGAGCTC
6751	ATAAGGAAGG	TATCAGACTA	TCCCTTGGTA	TCAGTGTTAA	AGGAATGACA
6801	ATAAGTTTGT	AGGACTTATG	ACTAGTTTCT	ATGAAATACA	GATTCATTA
6851	ATACATTTCT	ATATTTAATC	AAAAGAACTG	ACAAAATTGA	ACAGCTGTAT
6901	GTACATAGTA	CTTAACTTTT	CCGTCAAAGT	ATTGCAATTT	ATCATTATGC
6951	CACCTGGGGG	CATCACTTTA	CCATTGACAT	TTTGCATACA	GGGTGACCTT
7001	TAATTACAAT	GTAAATACCA	TATTCTCTTA	CATTTTTTAT	CACCTTCTGA
7051	ATTAGCTGTG	AGATTAAAA	AAAACCTACA	GTACAGACAT	TACACTTCCT
7101	TGATGCATGT	TTGGAGAGTT	TTCTTCTGG	CATAAATATT	GGGCATCGCT
7151	TTTTTCATTA	TCACAGTAGA	ATAAAATTAA	ACTGTTAAAA	TGTTATGGTGA
7201	ATGAGATAGA	GGTTTTTCCT	TTATTATGCA	TCATGAAATT	CATAAAACAA
7251	TATTTGAGAA	TATTTTCTTT	CATAATTATA	GACACTCTAG	TCTAATTATG
7301	TTGTCATAGT	CCTAAAAAGA	TTGTGCTAGT	TCTTATTCAT	TTTATTTTAT
7351	AGTATTGTTA	AATTGTCAAA	GTATCTTTTC	AAAAAATCAA	ACCCAAAAGA
7401	TTTGATCAGC	CCAGAAATTA	CTTTGGCCCT	TAACATTAGC	ATTGTCATGT
7451	TAATTTAATA	GAAAAGAGAT	ATTAAGGAAA	TAGGTTTACC	CTAAAATACA
7501	TGATTAAACT	TGTAATTAAT	CATGGCCACA	GCTACAGTGA	ATTTCAACAT
7551	TCATCTTATC	AGCATAGAAT	GTTGGTTATA	ATGATTTTTT	AAAAATTTAT
7601	CACATTTAAG	ATATAGTGAT	CTTACTATGC	AGAGTTGATT	TTATGCTGTT
7651	GTCTGTTTTA	GTCTGTCAAC	TATGAAGTAT	TTAATACAA	TTAAATTTTT
7701	TTTTTTTGAG	TCGGAGTCTC	GATTGTGCAT	CCAGGCTGGA	TGCGAGTGGC
7751	GCGATCTTGG	CTCACTGCAA	GCTCCGCCTC	CCGGCTTCAC	GCCATTCTCC
7801	TGCCCTCAGC	TCCCAGTAG	CTGGGACTAC	AGGCGCCCGC	CACCACACCC
7851	GGCTAATTTT	TTGTATTTTT	AGTAGAGATG	GGGTTTCACC	GTGGTCTCGA
7901	TCTCTGACC	TTGTGATCCA	CTTGCTGGG	CCTCCCAAAG	TGCTGGGATT
7951	ACAGCGGTGA	GCCACGCGC	CCGGCCACAA	TTAAATATT	AGACCTTTGC
8001	TTTGGACTCA	GCCACGAGAG	GGAACGTAA	CTAGTAGGAG	ATAAGCCCTA
8051	GCCTTCAGGT	GCTTCCAGTC	CGGAAGACTA	TATCAACACA	CATAAAACAA
8101	CTAGTATACA	GTACAAGACA	ATGCTTAAGT	ATCTGTGTGG	CAGGTTGCAC
8151	TCGAGAGATG	TGGAGTGGCT	ACTCCCTTTC	CAACTCAATT	TTATCTTACT
8201	TGTTTCTGTG	TACTATCTAA	CTTATGTGTA	TTTTCCCTTT	GGTCTTATCC
8251	AAGTGCATAT	CCAAATATTT	TACCCCTTAA	CTGTGATCGT	ACACCTTGGT
8301	CTTTGTCTAA	ATATGGGAAA	AATGGTAACA	AGGAAATGCT	TTATCTCTAC
8351	AGAAGGCATT	TTTTCCCCCT	CTATCTCATA	TGTCTGCCTG	AGATAAGGAT
8401	CAGGAGTTAA	ATAGTAAAAG	GCCTACAAGT	CCTTAAAGAA	ATGGCCCTCA
8451	AGTCCAGGCT	CTTGCTCTCT	CAGAGAGCTC	TTGGGTCTAC	ATTAGAGTAG
8501	ATTTTAAAA	GCTCTAGCAA	CTGATTTTTC	TACCCAGTTA	TGGAACACAA
8551	ATGGAAGATA	GGGGGCCAAG	AGTTGATGCT	AGAATTAGTC	ATACTGACAA
8601	CAGAGGGGAG	TGGTCTTAGA	CCATAAGAGT	AAGGGAGGTA	GAAAGTAAGA
8651	AAAAGATAAT	TAAAAAACCC	CAAAAGCCAA	AAAAGTCTGG	GTCCATTGTT
8701	GTAAAGCTCT	CCATACTCCA	GTTTCTACTT	ATAGAAATCT	CAGACGTCCA
8751	GCCCTGTTCC	AAAGATACTGT	ATTGAGACAG	ACTCACTAAC	TGGCATGGAG
8801	TCAAAGGGGC	TCAGGGGTTT	AGCCACACCC	CTGGGGTCCA	GGCCTCAGCT
8851	TTTCATATTC	ATACACCCAG	AGATGGTCAG	TCTTGGAGAG	GAGCTTATAT
8901	TAACATAAAT	AAGACAAGAT	AGATCTATAA	ACCATGATT	CACCTCTTAA
8951	TCTGGTTCCT	AGGATGAACA	GTACTCTCTC	CTTTGTGCAC	CCTCCACACA
9001	TTTTCTGGTA	GAAGTTCTGG	AGAAGCTGTA	TATCTAATGA	GAAAGTAAAA
9051	TATAACCAA	ATAAGCAGGT	GGAATAATTG	GGCAATTACT	CGCTTAAACC
9101	AGGTAAAAAG	TCTCTTCTAA	GAACTTGACA	AAATGGAACA	GCTGTATGTA
9151	CATTCTAAGT	GGCTATTGTT	GTGGGAGCCC	TAAGACCCAG	TGTTTATCTA
9201	CTAAATAGCT	CTGGATGCAC	CCCCATACAA	ATATTCATAG	GGTACCTCCT
9251	TTCCCAATAT	TGAAAGTAA	GTGTATACAC	TTTATAAAAA	GTTCAGATGT
9301	GCATAAAGAA	GCAGTAAAA	AATCTATAAT	CCTGCCATCC	AACCTGTGGT
9351	CTTTTCTGTA	TGCACGTACA	AATATTACAT	CTTTTAAACG	AACATGGCAT
9401	TGGTCTAGT	CATTGCCTCT	GAGAGGAGAT	AGGAAGAGAA	GGGAGACTTC

FIGURE 3, page 3 of 141

```

9451 CTTTTCAC TG AACCCCTTCT GTGCATTTGG AATTTTGTAT CATGTGCAAG
9501 ACTGAAACAA AACAAAACCT ATAAAAATAAA GTGAAAAAAC CCACATATTC
9551 ATTCAACAAA TACTGGTCAC CGTTTACTGG TCATCTGGAG CTTGAGTCTG
9601 GTACAGTGAT TCTTAACCTT GGCCAAACAG TGGAATCACA ATATTTAGAA
9651 AGTACAGATG CTTGAGTCAT ACTCCAGTGA ATTCTGTTTG GTCTGGGGTA
9701 TGGCCAAGGA TTTTGTAGAA CTTCCAGGTG ATTCATATGT GTCAGTAGAC
9751 TTGAAATATC TCAACTGGAG ATAAAAACTC TACTTACATA ATCATAAATA
9801 ATTTTAGCTG CAATAACTTG TGAAAGAAAA ATCTTGGTTC TTGTGAGGTA
9851 CAATAAACTC ATCTTTGCTT GCAGGATGGA AGGTTGGGTG AGGCAAGGCT
9901 TCCCTGAGAA CTGTGAGCTG AAATCTGAAG AATTATTAAG AAGTAGCCAG
9951 TGGTTTTTCAC AATTTGTGTA GCATCAGAGT TGTCTGGAGA GCTTATTAAA
10001 ACAGATTGCT TGGCTCCCCC CTACCCAGAG GGTTTCTGAT TTAGCAGGTC
10051 TGGTAGGAGG GGCCTGACAA TTTGCATTTT TAACAGCTGT TACTACATCT
10101 TAGAGGACTG CATTTTGAGG ATCCTTGTAC TAGGCAAGG GATGGGAGAA
10151 GAGTTGCATT CAGTGTAAT GGCCTAAAA TGGAATAGAG TTCAGTGTAT
10201 ATACAATCTC ACATGCTTTT TTAAGCAGG AAAATATAAG CATTTTCCCA
10251 TGTAGTAAA TACTCTTAA AAGCATCATT TTTAACACCT GCATAAATAGT
10301 CTATGGCTTT CTTGTCAATT AACGGCCACT TGTGGATAT CTAGATTCTA
10351 GTGCCTTCTT TGAAGTAGAA GACTATTGTG CCTTTTAGCG TCCTCAGCGA
10401 TTTGATGTGA TGAAGTGTTC AGCATTTTCT TCCTGTGAGT AGCATAACTG
10451 AAAAATAAG GAATGCAAGC TTCGGTCACT GAGAAATGAC AGGCATTCTG
10501 TGTCAATCAA TTTGAGCATT TTTGGGGTTC AGTTGTGAGT TACAGTACA
10551 TTTGCACTGT AGTAATTAGA TAAAAAGAAC TTCATCCATT TTTTTTTTTT
10601 TTTGAGACGG AGTCTTGCTC TGTGGCCAGG CTGGAGTGCA GTGGTGTGAT
10651 CTCAGCTCAC TGCAGCCTCC ATCTCCAGT TTCAAGCAAT TCTCCTACCT
10701 CAGCCTCCTG CATAGCTGGG ATTACAGGCA CCCACCACCA CGCCAGCTA
10751 ATTTTGTAT ATTTAGTAGA GACAAGGTTT CACCATCTTG GCCAGGCTAG
10801 TCTCAAACCT TTAACCTCGT GGTCCACCTG CCTTGGTCTC CCAAAGTGCT
10851 GGGATTACAG GCGTGAGCCA CCATGCCAG CATGAATAAT AATTCTTACT
10901 AAAATGTGTG GGTTTTTGTA ATATTAATAA TACACTTTCA ATAATTGAGA
10951 TTGTGACTGT AATTTCTGCC ATTTAATAGC TGATCGCCTT TAGCAAAGCT
11001 AATATTTATA TATTGTACCT ACTAATACCT ATTTATGGAT ATTTCTGTCT
11051 GATTTATTTA ATCATTTTAA CATATCTTTA CTTTCAATTT TGAGTCATTT
11101 TAAACAAAAC TTAATAGAT TTAATGAGT CAACCTTGAG CTCAATCTAT
11151 GTATTCTTAT TAAAGCTACT ATTTCTATAT TATGTCTAGG AGTTCTCTCC
11201 AGTGGTTATC TGTGATGGGA TAGTGGGTTT ATTGAGTGGG ACGAGTTAAT
11251 TTAATAGGAT TCAGTGGTTT ACGCCGTGGA GAGTTATGAA AACAATTTGG
11301 AAGAAACTAA TGATTTCTTT CTATTTTGCC TTGCCAGACC TCAAAACACA
11351 GTTCTTTTCA GTTCTCTACA GTTAAAAAAA AAAATCTTCC TGCTTATCTT
11401 TTAAGAGAAA GATAACATG AAAGCATATT AAAATATTA AAATTTTAAT
11451 ACTAAAATTA ATATTAATAA CAGTTCAGAT TCTCGGAATC TTGTGCTTAG
11501 GTTCTCTAG GTAAATATAG AAAGAGTACA TTTGAAGTGG GACTTCACTT
11551 TGGGCTTTGT CAGTTCTCTG CACACAATAA GGTCAAGCCT CTGAGCTTCT
11601 GGCCATCTTA TATTTAAAGT TTGGGAGATG GAATGGATAA GGAGAGAAGA
11651 AAATGCAAGG GCACATAGTT ACTTTGATTA GTTTCAATCA TGGAATGAA
11701 GTCAATATTC TGAGATAAAT GACTTTCCTA AGGCCGCTT GCTGCATGTG
11751 TTAGCATAAA AGAATCCGTG TGCTTCTAT CTGGTTTTTA ATATTTACAG
11801 ATCAGAAATG ACTAATAAAA TATTAGAATG AGTAGGCTGC AGGGAAACCC
11851 TCAGTTTCTT TTTGGCTTAG GCAGGGGGCC AAAAAAGCCT CCTTTAAGA
11901 CTGAATTGCC AAGAAACATT TAGGAAGAAG ACAACAGTTA GGAAGAAGGC
11951 AACAATACTC AAAAATTTTT CTTAAAAATA ATTCTTTTTT CTTACATTAC
12001 TGTGTTTGA AAGAAAACAA AAGTGATGTA TTTAAAAAT TACAGCCGTA
12051 TTAGTGTCAG CAGTAAAGT ATATTCAAAT TACAATAGTA TACTTGTTAG
12101 ATTTTCAGAC TTATTTAAAT TTATCATTCC ACTCTGTTCT TTCAATGTGT
12151 TGTCTGGTG GATTTGTGAG TAGGGAAGCT AATGGTTGG CTAACACTGA
12201 ATGACATCCC ATGAAATATG GAATAGCATT CTTCATTTAA ATGTATGAGA
12251 TAGGGGAATA TCTAAGCTAT TCTAGTAAAT AATAGTAATA ATAAATGTAA
12301 TTGATATGC TGATCCCTTT ACATTGTCAT TGTGACTTTC CTAAAAATTT
12351 TAAAGTGCAA GATTTTGTG TTAAGCCTAT TAAGTTATTG TATCTCATTT
12401 ATTCAATAAA TAAAGTATTT TAGGATGAGT GCAAAAAATG CAAGAGCAAA
12451 ATTTGATGGG TGATGCTAC CTTGTAGGTT TTTTTCCTT CCCCTAAAAG
12501 GGCTTTTTTC ATCGAGATGT TTTATAATAA AAAGTGAGCT GATTTTAAAT
12551 AGAGTCCAGA GGAACCTCAA TAACCAAATC CAGAATCTT AATGGTTGAT

```

FIGURE 3, page 4 of 141

```

12601 GAATATTAGA ATATTCAGTC AGCTAACTTT AATTTCCTGA CCCCCAAACA
12651 AGCACAACAC CCTCAAGTAT AATCTGTAAC TAGCCCTTCT TGCTGTTGTT
12701 TCTACACAAG CAGCCTTTTG GGGAGAATAT TTCTCCAAC AACTTTTGGT
12751 GCATCCGGCA GCCCAGCTCT CTTCCTGGCA GACAGCAGGC AGTTCCCTTT
12801 TACCATTGCT TACTTTAACT GGATCAGTTG AGGGAGGCAT CTGTTTTACT
12851 CAGTCCTTTC CTTCTAAACC GATCTGGTTC CTTTTTGACG CATGAATGTC
12901 TCTCAAGAGT AATATAAGGCA ATTTTGGCCA GCACCCAAC TTATACCTAT
12951 TTTGAACTGA AAATTTTAGT TGTGATATCA TCCACCCTTA AGTAACTTGA
13001 AATGAGATAT GTATATGACT TAAATTTAAA AGAAATGAGA AGGGGGAAAA
13051 TTCTCAAGTT AAAATTAGTT TCTGGATCAA TTTATTACTC TTCAACTGAT
13101 TTTCTGGGG AAAAAGCTT AGTTGCCATA ACATCCATGT TTAAATAGTG
13151 CACTTTGAGT GATGTGCATG ACTTACAAGT CAACATGAGA GACAAGCAAC
13201 CCTCATGTTA GTAATAGTTT CTGGTTCAGT TATTCCTAAG CTTGGTTTTT
13251 GGAAAGAGTA ATTTGTAAAT TTAATTAAGA GTAATTTGTA CATCTATGTG
13301 GGAAATAAAC ATTGTGGCA CCAGAGTTCT AAAAGTAGTT TACTCCACTA
13351 ATTGTGCATT GTATAAATAA TGTATGTAG TATCAAAAAT AAGCAGTTAA
13401 TATTGTGTGA CCTTTATTGC TTTAAAATAC TGTGAAATTG AATTTCCATT
13451 CCGTAGTTTA ACGAGAACAC TTTTATTTCT CAGATACTCT TATAAGCCCT
13501 AGTCCCTGCT ACTCACGAAT GAATAATTAT GAACCTTTGA CATGCTATAG
13551 AACATACTTA TTAGTACAGT AGTGCTGTAT TTATTTGGGT AGTTATATGA
13601 AAAAAAAAC ACCCCAAAGT TTAGTTATT AAGAAAGCAA AACTAAGCC
13651 TGATGAAATG TGTGGGGTG ATGGATATGC TCATTATCAT GATTGTAGAG
13701 ATGGTGTCTAT GTTTCATGGG TATATACATA TATCAAAATT TGGCAAAATTA
13751 TACACTTAAA ATATGTGCAG TGTATTATGT CAATTGTACC TTAACAATTG
13801 TGTTTAGAAA AAGCAAAAC CCTGTACCAT GATATATGAA AACCCTTAAG
13851 ATTGTTAAAC TGCTGAATT TGCAGTTACT AATGATAATC ATTATGAAAC
13901 TTGATACTTT CAGCTGAGTG CTGCTTTTTA ATCTTGGGTT CATACCAGCC
13951 AATTTTATTG TTTTAGCTC AGAGAAAAAT CATAGGCTTT GTTTTTGGTA
14001 CCTTTATTGG GCAAGTGAAG AAGGAAGATC AAAATGTAGT TGATAATATT
14051 GTCCTACATA CTAGGTTTCC AACTTTCTAA GAGTGGAAAA TTTGGAACAT
14101 TGAATTTCTG ATTAGAATGT GTTGGGTGT CAATTTTCTC AGTCTCTCCC
14151 ACATGCAGCA GTCACCTAGC ATTTTAATTA AAGTTTGGTT GATGTTTCCA
14201 CTTCCCTATT AGTTTGAATT TTGAGAAACC CTTTAAACC TAATCACTTA
14251 GCTATGGCTG CTTTCCTTCA GGGGAGATTG AAGGAAGATT TGTGGCCCCA
14301 CAGCCCTTCA TTTCTCTCT TCTTCTTTG CTTATGTCTT TCATCTCATA
14351 AGCCTCATAC AAATGCATAC ACTGTGAGTT TGGGGATAAT ATCGGCCAAT
14401 CCACTTTTTG CAATATTGGA TTTGCTATTT GGTGATCAGC TGCTTTTAAT
14451 TTATATTGCT ATTTCAAAGA CATTTTGGTG CAAAGATTAT TGAGCTCTAA
14501 TGAGTAGTTT CTATTATTTT TAGAATTGCT TTAGTAATCA AAATTACAGG
14551 AAGGATTAAT GACAGATGTG AGTTGCAAGG CAGTTTAAAC TTAATTAAAA
14601 AATGAAACAT TTGGGTGTTT CATATGAATT GGACCTGACA CATATCTGAA
14651 ATTGCATTTT AAGTAAGCTT TAAAGCAGTT GACTATTGAA CTTGCAGGGA
14701 GTAAGTACAT ATTCAAAAGG TTTTGAAAAC TGACAACAGT AGATAATTTT
14751 CCACAGATAA AGCTTATTTT GGCATTATTT TGCTAGCTCA CATAACCATA
14801 AAAACTCTGT GTGTGTGTGT GTATGTGTAT ACATACGTAA ATATATACTC
14851 ACGTATATAT ATGTGTGTGT GTATGTGTGT GTTTAAGGTG TGATATATGT
14901 TATGCATTTT TTAATTGGAC AGTTTTTTAG TTCAACACTA GTTTCAGCAG
14951 CAAAAGTTGT GTTCAGCTGG TAATAATATC CCGTTCTGAT GGATGAAGAG
15001 GCAAGGGCTC AATATTTTCA AACTATACTT GGACATGAAC TCAGTATTGA
15051 GTACTTGGAA GTACTCAGTG GAGACTTCTA TTTTATAAAA ATTCAAAGG
15101 CGATTCCAGG GCAAGATGGC CGAATAAGAA CAGCTCTGGT CTGCAGCTCC
15151 CAGCGAGATC AATGCAGAAG GTGGGTGATT TCTGCATTTT CAACTGAGGT
15201 ACCTGGTTCA TCTCATTTGG ACTGGTTAGA TGTGGGTACA GCCCAGGAG
15251 GGCGAGCAGA AGGAGGTGG GCGCTACCT CACCCCGGAA GTGCAAGGGG
15301 TTGGGGAGCT CCCTCCCCTA GCGAAGGGAA GCTGTGAGGG ACTGTGCAT
15351 GAGGAACAGT GCATTCCAGC TCAGCCACTA TACCTTTCCC ACAGTCTTCA
15401 CAGACCAGGA GATTCCGTCA GGGGCTACA CCACAAGCGC CCTGGGTTTC
15451 AAGCACAAAA CTGGGCAACC GTTTGGGCAG ACACCCAGCT AGCTGCAGGT
15501 TTTTGTTTTT TGTTTTTTTT TTCCCTGTAT CCCAGTGGTG CCTGGAATGC
15551 CAGCGAGACA GAAGTTTCA CTCCCTGGA AAGGGGGCTG AAGCCAGGGA
15601 GCCAAGAGGT CTTGCTCAGC GGATCCCAT CCCATGGAAC CCAGCAAGCT
15651 AAGATCCACT GGCTTGAAAT TCTCACAGCC AGCATGGCAG TCTGAGTCTG
15701 ACCTGGGATG CTGTTGCTTG GTGGGGGGAG GGGTGTTCAC CATTACTGAG

```

FIGURE 3, page 5 of 141

15751 GCTTGAGTAG GTGGTTTTCC CTTACAGTA TAAACAAAGC TGCCAGGAAG
15801 TTCAAAGTGG GTGGAGCCTA CTGCAGTGCC ACAAAGCCGC TGTAGCCAGA
15851 CTGTCTCTCT AGATTCTCTC TCTCTGGCAG GGCATCTCTG AAAGAAAGGC
15901 AGCAGCCTCA GTTAGGGGCT TATAGATAAA ACTCCCATCT CCCTGGGACA
15951 GAGCACCTGG GGGAAAGGGG GGCTGTGGGT ACAGCTTCAG CAGACTTAAA
16001 CGTTCCTGCC TGCTGACTCT GAAGAGAGCA GCAGATTTC CAGCACAGCA
16051 CTCGAGCTCT GCTAAGGGAC AGACTGCCTC CACAAGTGGG TCCCTGACCC
16101 CCGTGCCTCC TGATGGGGAG ACACCTTCCA GCAGGGGTCG ACAGGTACCT
16151 CACACGGGAG AGCTCTGGCT GGCATCTGGC AGGTGCCACT CTGGGATGAG
16201 GCTTCCAGAG GAAGGAACAG GCAGCAATCT TTGCTGTTCT GCAGCCTCTG
16251 CTGGTGATAC CCAGGCAAAC GGGGTTTGGG GTGGACCCCC AGAAAATACC
16301 AGCAGACCTG CAGAAGAGGG GCCTGACTGT TAGAAGGAAA ACTAACAAAC
16351 AGAAAGCAAT AGCATCAACA TCAACAAAAA GGATGACCAC GCAAAGACTT
16401 CATCCAAAGG TCACCAACAG CAAAGAACAA AGGTAGGTAA ATCCACGAAG
16451 ATGAGGAAAA ACCAGCGCAA AAAGGCTGAA AATTCCAAAA ACCAGAATGC
16501 CACTTCTCCA AAGGATCACA ACTCCTCGCC AGCAAGAGAA CAAACTGGA
16551 TGGAGAATGA GTTTGACAAA TTGACAGAAG TATGCTTCAG AAGGTGGATA
16601 ATAATGAACCT CCTCCGAGCT AAAGGAGCAT GTTCTAATCC AATGCAAAGA
16651 AGTTAGGAAC CTTGATAAAA ATTAGAGGAG TTGCTAATA GAATAACCGG
16701 TTTAGATAAG AACACAAATG ATGTGATGGA GCTGAAAAAC AGCACAAAGAA
16751 CTTCATGAAG GAAGCATACA CAAGTATCAA TAGTCAAATC AATCAAGTGG
16801 AAGAAAGTAT ATCAGTGATT GAAGATCAAC TTAATGAAAT CAAGTGTGAA
16851 GACAAAGATT GAGAAAAAAG AATGAAAAAG TAATGAACAA AGACTTCAAG
16901 AAATATGGGA CTATGTGAAC AGACCAAATC TACATTTGAT TGGTGTACCT
16951 GTAAGGGACG GGGAGAATGG AACCAGTTG GAAAACACTC ATCAGGATAT
17001 TATCCGGGAG AACTTCCCCA ACCTAGCAAG ACAGGCCAAC ATTCAAATTC
17051 AGGAAATACA GAGAACACTG CAAAGATACT CCTCAAGAAG ACCAACCCCA
17101 AGACACATAA TCGTCAGATT CACCAAGGTT GAAATGAAGG AAAAAATGTG
17151 AAGGGCAGCC AGAGAGAAAG GTTGGTTTAC CCACAAAGGG AAGCCTATCA
17201 GACTAACAAC AGACCTTTCT GCAGAAACCC TACATGCCAG AAGAGAGTGG
17251 GGGCCAATAT TCAACATTTT TAAAGGAAAG AATTTTCAAC CCAGAATTCC
17301 ATATCCAGCC AAATAAGCT TCAAAAATGA AGGAGAAATG AAACCCTTTA
17351 CAGACAAGCA AATACTGAGG ATTTTGCCTT ACAAGAGGTC CTGAAGGAAG
17401 CACTAAATAT GGAAAGGAGA AACCAGTACC AGCCACTGCA AAAACAAACC
17451 AAAATGTAAA GACCATCAAC ACTATGGAGA AACTGCATCA ACAAATGGAC
17501 AAAATAACCA GCTAGCATCA TAATGATAGG ATCAAATTCA CACATAACAA
17551 TATTAACCTC AAATGTAAAT GGGCTAAATG CCCCATTAA AAGGCACAGA
17601 CTGGCAAATT GGATAGAGTC AAGACCCATT GGTGTGCTGT ATTCAGGAGA
17651 CCCATCTCAC CTGCAAAGAC AAACATAGGC TCAAAACAAA GGATGGAGGA
17701 CTATTTACCA AGCAAATGGA AAGCAAAAAA AAAAAAAGGT
17751 GGTGGGGGGG GTTGGGAATCC TAGTCTCTAG TCTCTGATAA AACAGACTTT
17801 AAACCAACAA AGATTAGAAG AGACAAAGAG GGCATTACA TAATGTAAG
17851 GGATCAATGC AACGAGAAGA GCCAACTATC CTAGGTATAT ATGCACCCAA
17901 TACAGGAGCA TCCAGATTCA TAAAGCAAGT TCTTAGAGAC CTACCAAGGG
17951 ACTTAGACTC CCACACAATA ATTTGTGGGAG ACTTTGATGC CCCACTGTCA
18001 ATATTAGACA GATCAACGAG ACAGAAAATT AACAGGGATA TTCAGGACTT
18051 GAACTCAGCT CTGGACCAAG CAGACCTGAT AGACATCTAC AGAACTCTTC
18101 ACCCCAAATC AACAGAATAT ACATTTTCT CAGCACCAGCA TAGCACTTAT
18151 TCTAAATCG ACCACATAAT TGGAAGTAAA AACTCCTCA GCAAATGCAA
18201 AAGATCAGAA ATCATAACAA ACCCTCTCTT AGACCGCAGT GCAATCAAAT
18251 TAGAACTCAG GATTAAGAAA CTCACCTCAA ACTGCCCAAT TACGTGGAAA
18301 CTGAACAACC TGCTCCTGAA TGACTACTGG GTAAATAAGA AAATTAAGGC
18351 AGAAATAAGT TTTTGAAT GAAGGAGAGC AAAGACACAG CATACCAGAA
18401 TCTCTGGGAC ACAGCTAGGG CAGTGTTTAG AGGGAAATTT ATAGCACTAA
18451 ATGCCCCAGC GAGAAAAATG GAAAGATCTA AAATCAACAA TTGTCTATTT
18501 GTGCCCTTTT AGACTTTTGT ATGTGAGCAA GAAAGACCTA AAATCGACAA
18551 TTGTCTATTT GTGCCCTTTT AGACTTTTGT ATTTGGGCAC TTAAGTCTAT
18601 GAATTTTCTT TTATACCACTG CCTTTGTGGT ATCCCAGAGG TTTTGTATAGG
18651 TTTTGTCACT ATTATACTTC AAATAATTTT TAAATTTCCA TCTTGATTTT
18701 ATTGTTTACC CAACACTCAT TCAGGAGCAG GTTATTTAAT TTCAATGTAT
18751 TTCCATGGTT TTGAGAGTTC CTTTGTGAGT GGATTTTCAG TTTTATTTCA
18801 CTTTGATCTG AGAGAATACT TGATATAATT TCAATTTTCT TCAATTTATT
18851 GAGACCTGTT TTATGGCTTA TCATATGGTC TGTCTTGGAG AATGAATGTT

FIGURE 3, page 6 of 141


```

22051 GAGTCTTCAC ACGCTGCTCT GTCTGTCTGA GTGGGAGCTG CAAGTTAGTC
22101 CTGCCTCCTA TCCACCATT CTTTTTCTAG TGTCTCGGCT AGTAATTTCT
22151 GAGTGGAAATG ATGCATCATT TACATGTCAC TTCAGCCTAA GGAGTAGAGC
22201 CCTCTGTACC TTGGAGCTTC TCTTCTGAGC TCTTGCATTG AGACGCTGGC
22251 ACCTGTGTAC AGAAGCACTG TAAGGAGGAT AGCTGCCTGC TGACTTGCTC
22301 CGCCTACGGA AGACTTGGTG TCCATTTTGA CTTGCGGAAC CTAAGGCTTG
22351 AACTAGTATA GCCTTTTCTA ATTAATAGTA CATACAATAA CAATGATTGC
22401 TTTTTGGTGT TAGTTAGCTA AAAGTTTCGT TAGTTTAGTA TTTTGGTTCT
22451 AAAACACATT TTAATTTTTC TCTGGTTATA CATTCCATGT AGATTAAAGG
22501 CATAAATCCA TGTAGAATAA CAAATGGACC TCATGGTATG GACTCAGCAT
22551 GATTATGTTC TATGTAGAAT CTAGAGACGA ATTTAGAGAC CCAATTTTCTAG
22601 ATACATAATT TCTGTGCAGT TTTTGTACCA ATTAGCAAAG AGATGATTGA
22651 CGGTTGCTAG TCCTGTGAAA CAGCAGTAGT TACGCAGTAT ATGTCCTAGT
22701 GGTATGGAGT TTAAGAATGA AAATTTTATC CTAAGACTTA GCCCACTTGT
22751 ATCGTCACTC TATACGTCAT TTATTTTGGG ACTCTTCTTG CTTTTAGATG
22801 ACAATTTACA AAATTTTGTG TCATTTCTTT AATTGGTATT TGTACTTATG
22851 TCCCACAAAC GGCTTAATTT GTGTGTCCAT CAGTGGCATG TTAAGCCCAT
22901 TTTAGCCCAT ATATGTTACT CAGTGTGTGC AAACGTGTAT TTTCTACTAA
22951 ACGGTATCTA TTTCAAGAGT TTGTCAGATA AACTATGCAG AACCAAGATG
23001 TCAGTTTGTG GTTTTATTTT CCTATATTGC CTCATTTATA ACAATAATAT
23051 ATGATCCTCC AAATTTGCCA GATATTGTTC AAACGTGATT TTCTAAAAGT
23101 AGAGATCTTC TGAGGATTTT TTTGTTTTTT AACTATATA TCTATGAATA
23151 CTTTTAACTA CATGTTATAA ATAACAAAAA CAATTTAAAA AAAGTTGTTG
23201 CTTGTGACAA CACTAACGTC AAGGAAATTT TGTTTAGATT GGGAAAAATAA
23251 AACAGGTGTT TCAGTCCAAA AAAAAAAAAA AATCAAAAGG CATTAAATATG
23301 GCCCCTATTG AAAAGCCAC ACTGAGAGGC ACTAACTACC CATGCCTTTG
23351 CAGTGTGAGG TTAATGGGGG GGTGTCCCCT CAGCAGCTGC CTCAAGCTCC
23401 TGCTTTGCCA TTAACCAGAC TCACTCCAGG ATTCCTTGGA AACTGTGTGC
23451 CTACCTGAAT AATTTATTAC CTAGTGATCA ATTATTCATA ATTCTTTATT
23501 ACAACGAAAT AAAACCTAAA GGTGGAATCA TTTTGCCACT TATGAATATC
23551 CAACAGATCA TCAGGAGATT GCAGTAGAGT TTTAAGCCCT TGCGGTCCCC
23601 ACTGCCTGTT TGTTTCTCTG AAGGGATTCC ACAGAGAACA GCCTTCTGAG
23651 ACAGGATCAG AATCAAAGAA AGCAGTAACA AATGACTCCC TGCTGGTCCG
23701 GCTGCACGGT TCATCTATTC ATGCTGTTTG TCTTTTTAAT TCTGGCCTCA
23751 TTTATACCTA GAAATAAAAT TTCAATTTGA AAGAATGTAG GAGACTTTTA
23801 TGACACCGTT GGTTTATTAA ATCATTCTTA GGAGGTAGAC AAGGACATAA
23851 AACTTACACC TAGAGTATCT TCTGGAATAA AATGCAGGAA CCTTTAGTAC
23901 ATTTTATTGA CACTAATCAT ATTGCATTG CTTGTTTCAT CAGTTATATC
23951 TGAGTTATAT TTTATTTATT TATTAGACCA TATAAAATG CCATATATTT
24001 TCCACATATA TAGAAAGCAT TTTAGTAAAA GTTCTCTGAA AGTATAGTAA
24051 GGCAGGCAT GGTGGCTCAT GCCTGTAATC CCAACACTTT GGGAGGCTGA
24101 GGCAGGAGGA TCGCTTGAAC CCAGGAATTC CAGACCAGAC TGGGCAACAT
24151 TGGGAGACTC TGTCTTTACA AATAGTAATA AATAGTGGGC ATGGTGGCGC
24201 ATGCCTGCAG TCTGTCCAG CTACTCGGAA GGCTGAGGTG GGAGGATTGC
24251 CTTAGCACCT GAGGTGGTCA AGGCTGCAGT GAACTAGAAT TGCAACACAG
24301 CATCCCATCC TAGGCGACAG AGTGAGACCC TGCCTCCAAA AAAAATTAGT
24351 ATAACCAAT GAAGCCTACT TCTTTAAAAT TTGGGAAATG TAGTGGAAAA
24401 TTGTTTAGCT TAAGCCAGAC TACTTAATTT TAAAAATAAT CAACAAGTTT
24451 TAAAAAATAT TTTGAAAATA CTTGGAGAGT TTTAATTCCA GTTACATTAG
24501 ATTATAAAGC AGAAGGTTTG CCTTTGAGGT TTCTTGCTC CCAACCAGTT
24551 GGCTTTCCGT TGGACACTCT GGCAGTGAAG AGTGCACATA ACTCTGTGAC
24601 ACTCCACATT TTGGGTTGTC ATTTTCAAGT TGTGGCATT TCTCTGTAGT
24651 TACTTCCAAA ATAAGTTAGT ACTAATTTTG AGCATGAGTC CTGGGACCCT
24701 GGGGTTAATA TTTGCCAGGT CTAAATATACC CCGGCTGTGA GATAAAAAATC
24751 CCAAACTGTC AAACAAGTAC TTTTATAGTG AGATTCAGTA TCATTTTTTG
24801 TATTGATGTT GGTTTACCAA ATGGAATGAA GGCTAAATGT TTAAGCAACT
24851 TTTAAATGGC CTAACCCAT ACCTTTCACA CAAGACCCTA CATATCTCAG
24901 ATAACCTACC AATCAGAGTT TAAATATGGA TTTAGTTGTA CTGTTGTGAA
24951 AATATGTGGG TAATTTTAA AACCTTTAAA AATATATATT AAGAAAATTT
25001 TTTTTTGATA CAGGTTTCA ATGTTGTCCA GTCTGGTCTC AAACCTCTGG
25051 TCTCAGACTC CTGGTTTCAA CTGATCCTCC CTCCTCAGCC TCCAGAGTAG
25101 TTATGCCCTG CTCTTAAAC TCTTAAGACA AATTTGAATA TGTATGGAG
25151 TAGAGTAAAA CATTTGCATG ATTTTGTACT TTATAATATA ATTTTGTATA

```

FIGURE 3, page 8 of 141

```

25201 GGTACACAT TCACATGGCT CAAAAACAT CAAAAGATCA AGTTTCGAGT
25251 TTCTCCTCAT CCTCTCTCC CCTTTTTTGA GTTCTCATCC TCTCCCAA
25301 AAGGTAACCA CTGTTAAGAG TTTCTTCTGG ATCCTTTTAG AATTGCTTTA
25351 TGCACACATT AGCAACTTAA GAATACAGAG TCTTATTTTT CCCCTTTCTG
25401 ATAAAAGCTA GCATATTATA CACTTCTGGT TTTTTTTGTT TTTTTTTTTT
25451 TTTGCTTTTT TCATATGACA CAATATCTTG GAGATATTTT CATGTTAGTG
25501 TGTAAGACAT TTCCCATTCT TTTTTTTTTT AAACAGCTCA ATAGCATGTT
25551 CCATGGTGTG GTTGTAGTAT AATTTATTTA ACCATTTTCC TGTTCATGCG
25601 CATTTGAGTT ATATTAAATC TTTTCTTATT AAAAATATCA CTGCAGTGGA
25651 TAACCTGAA CATTTGTCAT TTCACAAACA TGCCACTATT TCTGTCATGA
25701 ATTTTTAAGA TAAACATAAA CATTTTCAGAA ATGTGCTGTT TTTAGCAGTC
25751 TCATTCAGG GGTTTGAATT TATCCTTCTT TACTATCAGG GGTGTTTTGC
25801 TGGCAACATT TGAGAAGTTC TGCCATAAAC TTGTTATTAA GGCCTAGTGG
25851 TAGGATGATT TTTCACTTTC AGAAATAACT GCTGTGAAGT GATAGTGACA
25901 ACAGTGTAC CTTGCCACCG TATGTCTCTC GAAGGTAGTA TAAGAAAAC
25951 GTAAACCTGG TGGCAAAATA TTTATGAGCA GAAATATGT TGTAAATTTG
26001 TCTAGCTTTC TTGTTGGCAT TTGATAGAAT GAAACACTTG CAGCTATGAG
26051 TTTTTGGAAT AGGCCAGTA CCCTCTGACC TAAAGCCCTA CAGCACCAAA
26101 CTCTGATGTC TTGAAAAATA TTAATAGGTG GTTTACCTAA AAAGATTTCC
26151 ATGATTATAC AAGCTTGGAA AACACTGGGT TCCACAACAT TGAACAGTT
26201 TCTTTACTGA AGAATCTTTC AGATCCTTAA ATTTGCTGGG GTAAATTGTA
26251 ACTTTTAAAG CCTGGATGTA GCAAGCAGCA TTTCCAAAAC AAGTTTGACT
26301 ACTGAACCTC TCTTCCCGC CCCCCGGGAC ACTCTTATTA GCATTAATGT
26351 ACCAAGGAGC CTTAATTGGG AAATACTACC CATGTTGGAT ACCATGGGCC
26401 CCATATTCAA ATTAGTGGTC ACAAGCATAT GTGATATTTA CATTTACAAA
26451 AGATTCACTG AGGAAATAA GAATAAAAGT CATTATTTAA AAATTGACCA
26501 TTATGAACAG TAGATGGTGG TAATGTAACA TGCAGACCAA CTATTAAGAC
26551 ATGTCAACAT TTCCAATGGC AGCATTAATT CAAGGTCGAA AATGTCTTAA
26601 TTTAATTACA GTCTACCAGT ACTTTTAATT TCACCGGCTA AATTAATAAA
26651 AGGCTAAACA TAGTATTTA ACAAACCTTT AATTTCTCCC TAGGAAAAGC
26701 AGAAATTGGC TGAGAAATAA ATCTGAAGAA ATCTTTTAT CTTCACAGAC
26751 CATTGTAAGT GGCATGAGCC AGATCTGGTT TTTCTTGCCA TCCATGTATT
26801 AGATTGATGT TTCCTAGCTT GTGTGTACAC AAAGGTATAT GTGTATTCTT
26851 TCTTTTTTAA AAGAAAAGG CATCAATTTA ACCAACTTA ACTCTCCAGT
26901 GTCCATGAGA ATGGCAAAGA GCAGTTTCAG TCTGAAGCAT CTGAAGCAGC
26951 CACCGCCTTT GTACTCCAGG AACTGACATT TGGGCTGAAA ATAGGATGTG
27001 AATGCCAATA GCTCTATTAG AAGGGCCAAT GGGATGAGAG ATCAGGGTCT
27051 CTTAGAAGTT GAGAGGGATC TGAGCCACTT CCATTCCTTT GAAGTCTATT
27101 TAACTATAAG ACTGTGTAAC ACAGGACAAC AAAAATGGGA TATGCTTTAA
27151 ATATTTACAT TTGACAAAAA ATTAACATAC CAAAATTCAA TACAATGTGA
27201 CTACACAAC GACAAGATTA TTATAAATTT TAATTCCTAG TGTATTAGAC
27251 TTGGGGTGGC CCAGAAATGG GACACACATT TAAAGTTGTG GTGAACATCT
27301 TTCCAAGCTG CCAGTGTGTC TTAGGGACAG AGGGTGTAA CCGGTTTAGA
27351 GCTCTTATTA AGAGTCAACA TTTGGCCAGG CAGGGTGGCT CATGCCTGTA
27401 ATCCCAGCAC TTTGGGAGGC CAAGGCTGGT GGATCGGTTG AATCCAGGGG
27451 TTTGAGACCA GCCTGGGCAA CATGGCAAAA CCCCATCTCT ACAAATATA
27501 CAAAAATTAG CCGGTGTGG TCCCAGCTAC TCTGGGGGCT GAGTTGGGAG
27551 GATTAAGCTT AGGAGGCAGA GGTGACAGT AGCTGAGCTC ATGCCATTCT
27601 GGCCTGGGTG ACAGAACCAG ACCTTGCTCT AAAGAAAAAA AAAAAGTCAA
27651 CATTTGAAGC CCCTCATAAA TCTGCAGGCC TGAGAAAAAG AGACATGGGT
27701 CCTGATGCAG ATGATAAATC TAGAGGAAC GCAGGGAGTG GAGGTTCTTC
27751 CGTGAAGGAT ATCTCAACTT ACCTGATGGA GGGGAACAT GGCTCATATC
27801 TGCAATCCCA ACATTTTGGG AGGCTGAGGT GGGTGGATCG CTTGAGCCCA
27851 GGAGGTGGAG AGCAGCCTGG CCATTATGGT GAAACCTGT CTTACGAAA
27901 AAAATAAAAA AATTAGCCAG GCATGGTGGC ACATGCCTGT AGTCCCAGCT
27951 GCTTGGGAGG CTGAGGTGGG AGGATTGTTT GAGCCTGGGA TGCAGAGGTT
28001 GCAGTGAGCC TAGATTGCGC CATTGCACTC CAGCCTGGGT GACAGCCTGC
28051 CTCTAAATAA ATAAATAAAT AAATAAATAA ATAAATAAAT AAATAAATAA
28101 ATAAATGTAC CCGGTAGATA TGGAATTGCT GAAGATGGCT AAGGGAGGGG
28151 TTTTATCATT TAGTTGATG GTTGACCTT AGTTGGTGAA ACCAAGGCTT
28201 GAAATTACCC TTCTAAGGTA CAGTTGGGCA GTTTTTTCAC CCTGCTTTTT
28251 CCTTTTTTCT GATCCAAGGG CGAGCTTGCT TCACCTTTCT TTCCAGATGT
28301 AGCAGAAGGA CTAGCCTCAG GCAAGCAAGG CTGATGTCTT AATAAAGTGT

```

FIGURE 3, page 9 of 141

28351	CTAGACCATG	GCATCCCTGG	GGCAAGAGAG	CCTTGATGTC	TTGCTGTGTT
28401	CCCCAGGCAG	GAAGGGGGTC	ACTTTGATTT	GAAGACCTAT	CTATCTCTTC
28451	AGGTCTCTGCA	GTAAAAAATA	GAGACGCGGT	TTATATCAGC	CAAGTGCTTA
28501	ATGCAATAGA	ATCATTTAGT	CTGTAAAAAT	TAGGAAGTAG	TGTTTACTAT
28551	AAGTAATGTA	CAATGTGAAT	GTCTTCATTC	AGTCTTTGGT	CAATGGATAG
28601	ATTGTCTGACA	ATGTCAGGCA	CTGTTTTCAGA	CAGTGAACAA	AACAAAGTCT
28651	CTGTTCTCAG	GGAGGGGGACA	GTCTAGTTAG	CTTTTGGAA	GAATATAGACA
28701	ATAAATACAA	ATATATAATA	TACTAAAATG	TGATTAAAGG	CTATAGATAAA
28751	AAATAAGGGG	CCAGGCATGG	TGGCTCACTC	CTGTATTCTT	AGCACTTTGG
28801	GAGGCTGATA	TGGGAGGATT	GTTTGAGGCC	AGGAGTGTGA	GACCAGCCTG
28851	GGCAACATAG	TAGGACCCCA	TCTCTACCAA	AAACAAAATC	AGGATGTGGG
28901	GGCATATGCC	TGTAGTCCCTA	GCTACTGGGG	AGGCTGAGGT	GAAGGATCAC
28951	CTTGAGCCCA	GAAGTTTGAG	GCTACAGCAA	ACTATGATTG	CACCATTGCG
29001	CTCCAACCCA	AGCAGCAGAG	TGAGACCCCTG	TCTTTAAAAA	TAATAATCGT
29051	CATGAAATAA	AAATAAGGAA	AGAGGATAAG	GAGTGTGAG	TGTATATCTG
29101	GTAAATGCTA	CTTGGTAGTT	CATATTACGT	TTGGTATTAA	ACAGCAGTAA
29151	ATATTTAGTC	TGACAAAAAC	ACCCAAAATG	AAAGATCATT	GGAAGAGATT
29201	TTGGAGCAA	ATTTACCATT	AAAGCTCTTG	TTTTTCCAGT	AGCAGGATAC
29251	AGATTCTCTA	CTTATGTTTA	TGTTTCTGTG	TCTGGGCAAT	AGTGCAAGA
29301	GACCAAGTAT	ACTGTGTGTT	AATCAGTTCC	CTTTTCTGG	AGAGTTGGAA
29351	CCATTTTACA	GGGGAGTAAG	GCATGAATGA	GGGTGGGGAG	AAGGGGTACT
29401	TGGGTTTTCT	TCCGAAGGGC	TTCATTTTAC	TGCCTTGAGA	TCAGTGAAGA
29451	CTTTCACTTT	CAGGTCTCTG	GGCTGGTTCT	GTCTGTCTCT	GCCTCATTGT
29501	GTGTTTCTGC	TCTGCTGAAG	AGATTTCTGA	CTGGAATGAA	TGGGCGCTAT
29551	GGAATTGGAA	TAGAGAGATC	TAGATGGTTG	CCCCATCTCT	CCCCTGTGAT
29601	ACATGGTCTC	CTTGCCTATG	TTAGGAGTTA	GGTGTTTTCA	GAGAGACTGT
29651	GTTTTCCAGA	TTTCAGCTTC	ATGCAGTGCC	TGAAGATATT	TTATTCCCTCT
29701	AGCAAGGGTC	AGGACACTCA	CTGTGTTTTT	CCCTTATCAT	GGTTAGATAT
29751	GAAGGACCTC	AGGGGAAATC	ATCCACTTGG	GGCCGAAAAG	CATCCAGACA
29801	CTCTCATTTT	GGTTTCTCCT	GGGGAGCTCA	TGGTTCTGAT	GTTCACTGAC
29851	TAGTGTTTAT	TCTTAACAGT	GGTACCCEAA	GATCAGAGTG	CCTTCTTTCA
29901	GAAGATATGC	TACATGTTCT	AGTGAGAGAA	ACACACAATG	TTTGAACACT
29951	CCTGTGAGTC	ATATCCCTAT	TGGTCAGAAA	TCATTGCAG	CTTGTTCTCT
30001	ATGGTTCTAG	TGGAGAACAG	AGAGAAACTT	GCTCTGTGCA	TCCTGATGTA
30051	CAGTTGTGTC	ATCAAGGGCC	TCCCATTCT	GCCTTGAGAG	AAGATAACAA
30101	AGGGGGTCAA	AGCAGATGCC	CTCTATGTCT	ATAGGGATGC	AGCCACAGGG
30151	GCAAGCCCTC	CTGCTCTGGG	CTTCCAGTTT	TTTTTTCTGT	TTGTTGTGTT
30201	TTTTATTATT	ATACTTTAAG	TTTTAGGGTA	CATGTGCACA	ATGTGCAGGT
30251	TAGTTACATA	TGTATACATG	TGCCATGCTG	GTGTGCTGCA	CCGATTAACT
30301	CGTCATTTAG	CATTAGGTAT	ATCTCCTAAT	GCTATCCCTC	CCCCCTCCCC
30351	CCACCCACACA	ACTGTCCCCA	GAGTGTGATG	TTCCCTTCC	TGTGTCCATG
30401	TGTTCTCATT	GTTGATATCC	CATCTATGAG	TGAGAACACG	CGGTGTTTGG
30451	TTTTTTGTCC	TTGAGATAGT	TTGCTGAGAA	TGATGATTTC	CAATTTTCATC
30501	CATGTCCCTA	CAAAGGACAT	GAACCTACCA	TTTTTTATGG	CTGCATAGTA
30551	TTCCATGGTG	TATATGTGCC	ACATTTTCTT	AATCCAGTCT	ATCATTGTTG
30601	GACGTTTAGG	TTGGTTCCAA	GTCTTTGCTA	TTGTGAATAA	TGCCGCAGTA
30651	AACATACGTG	TGCATGTGTC	TTTATAGCAG	CATGATTTGT	AGACCTTTGG
30701	GTATATACCC	GAATAATGGGA	TGGCTGGGTC	AAATGGTATT	TCTAGTTCTA
30751	GATCCCTGAG	AGATCGCCAC	ACTGACTTCC	ACAATGGTTG	AACATGTTTA
30801	CAGTCCCACC	AACAGTGTA	AAGTGTTCCT	ATTTCTCCAC	ATCCTCTCCA
30851	GCACCTGTTG	TTTCTGACT	TTTTAATGAT	TGCCATTCTA	CCTGGTGTGA
30901	GATGGTATCT	AATTGTGGTT	TTGATTTGCA	TTTCTCTGAT	GGCCAGTGAT
30951	GGTGAGCATT	TTTTTCATGTG	TTTTTTGGCT	GCATAAATGT	CTTCTTTTGA
31001	GAAGTGTCCTG	TTTCATATCCT	TTGCCCACCT	TTTGATGGGG	TTGTTTGTPT
31051	TTTTCTTGTA	AATTGTGTTT	AGTTCATTGT	AGATTCTGGA	TATTAGCCCT
31101	TTGTTCAGAT	AGTAGGTTGC	AAAAATTTTC	TCCCATTTTG	TAGGTTGCCT
31151	GTTCACTCTG	ATGGCAGTTT	CTTTTGCTGT	GCAGAAACTC	TTTAGTTTAA
31201	TGAGATCCCA	TTTGTCAATT	TTGGCTTTTG	TTGCCATTGG	TTTTGGTGT
31251	TTAGACATGA	AGTCCTTGCC	CATGCCTATG	TCCTGAATGG	TAGTGCCTAG
31301	GTTTTCTTCT	AGGGTTTTTTA	TGGTTTTTAG	TCTAACATT	AAGTCTTTAA
31351	TCCATCTTGA	ATTAATTTTT	GTATAAGGTG	TAAGGAAGGG	ATCCAGTTTC
31401	AGCTTTCTAC	ATATGGCTAG	CCAGTTTTC	CAGCACCATT	TATTAATAGT
31451	GGAATCCTTT	TCCCATTGCT	TGTTTTTCTC	AGGTTTGTCA	AAGATCAGAT

31501 AGTTGTAGAT ATGCGGCGTT ATTTCTGAGG GCTCTGTTCT GTTCCATTGA
31551 TCTATGTCTC TGTTTTGGTA CCAGTACCAT GCTGTTTTGG TTACTGTAGC
31601 CTTGTAGTAG AGTTTGAAGT CAGGTAGCAT GATGCCTCCA GCTTTGTTCT
31651 TTTGGCTTAG GACTGACTTG GCGATGCGGG CTCTTTTTTG GTTCCATATG
31701 AACTTTAAAG TAGTTTTTTC CAATTCTGTG AAGAAAGTCA TTGGTAGCTT
31751 GATGGGGATG GCATTGAATC TAGTTTTAGA GAGAGCGATA CCAGCCCCAG
31801 ATTAGAGCTG CTTGGACATT GAGGAATCTC CCCTTTAGGC TGAGGACTAA
31851 AAGAAAGCTG TGGGTGTAAT ATCTAGATAC TGCATGTCAT TGTATTTTAT
31901 GTAAATACAA CCCATTGACT TATCTTCATC TCTTTATGCC TCAAGATATC
31951 ACAGTCCCT TAAGAGATT TCATACAGT CAACTTTATG CCTCAAGATA
32001 TCACAGTTCC CTTAAGAGAT TCATAATACA GTATAGACAA GAGAGGGAAA
32051 TCAGCCCTAA TTTTAGCTGC TAAGATAGTC ATACCTATTA GCTCTCCCAT
32101 CCTCACAGAC AAGTCTGTCT GGGTAACAGG AATTATCCCT GGTTACAACCT
32151 GAGGTAACCTG AGAAGAGGCA ACTAGCCCAA ATGGAAGTAA AATTTTCATA
32201 AGCTAATAAT ACTTCTATTC CAGAAAATTT CCATTTTCCG TATTAACAAT
32251 AGTGTAACCT TTTCTTTTGA AAAAATTAAG TACTTCAAAA GCATCTTTTC
32301 ATTTGGTTTT ATAGTAGTTC TATCAGGAGC CTTCAAAAGA AAGATTAAAA
32351 AAATTGTTAA TACAAGGTGT AACTGATCTG TGGTTCAGGA GAACCGTTAA
32401 TGAACAATGA AAATACATTT GAAATTATGT TATGGAGAAG TATCAGTCTT
32451 CTTGGTTCCC CTGAAAATAT GTTTTAGCTA ATCAAAACTA CTATGAATTT
32501 TATTTTGAGG TACTTTTATC TGGAGCTGGA GAATAGAATA CAGAAAGAAA
32551 TTGTATATGG TAATAGTAGC ATGGTGTATG CATATGCCCA AACCCATCAA
32601 ATTTGATACA TTAAGTGTGC AGGTTTTTTG GTATATAAAT TATATCTCAA
32651 TAAAGTTGTT ATAAAGAGGA GAAATATGTA CATTAAATTT TGTGTTTAC
32701 ACATATTTTT GATGTTACTG TAAACTATT ATGACTTAAT ATTCATATTT
32751 TCCTGAACCT TAGAAATGTA ACCCATAACA AATAAAACCT GGTTTTGAAC
32801 ATGTAATAAA AGTCCCATCA GAGGCACACC ATTCATTGAT GCCCTTAAA
32851 TGTACAGATA TGTGCATTTA ATTATTCCAT ATAGCCCTTT CAAGAAGCCA
32901 AATTAAGCTC CATCTACATA GTGTGAAGTA TATGCGTTTA ATGGACTTGT
32951 ATCAAAGTAT GCACACAATT GACTCCCAT TGCATTGACA GATGATGTTT
33001 TAGTTCTTTT AAGTGTTCCT GTAGCCTCCT TGACTTCCCC ATCTGCAACC
33051 ACCATCTTGC ACCTCTTTCA GAGAACTTAC TGTATTGACA GACACATAGA
33101 GGGTTGACAG AACTGAGCCC TGCCTCACTT AATGGAATAT GTAAAAGCAA
33151 AGTTGATCCA GTGACCAAGA ATGAGGTTGG TTAGTTTAGC AAGAGTCAGT
33201 TATAAATAGG TTGTATGCTT GACTAACACA GACAGGACCA GCTATATAAT
33251 TTGTGGGGCA CAGTACAAAG TGAAAAATGC ATAGTCCCTT GTTAAAAAAT
33301 TATTAAGAAT TTCAAGCCAG TGATAGCAGA GCATTAATCC AAGTGTGAGT
33351 CTCTTTTAAG CACTGGGCCC TATGTGACTG CACAGGTACT ATGCCAATTC
33401 TATGGCCTTG AACACAGAAT ATTATGGATA TTGTCATGGG GAAGGAGGGC
33451 AGTTAAAGTG TCCCCTGTTA AAAGACAGAT GTATGACATA GTTCAGTAGC
33501 AATCAGAATA ATTGAACAT TTTGGCTCTA AGGGTCTAAA AACAAATGAGC
33551 AAGGTGAAG TTATCTCATT TGAGCAGATC TGTATAACCT CACATGGAGT
33601 TTTAAACATA AAGGTATTGG AGGCCATTT TAGTGAGAGA AAATATGCTT
33651 GGTCTTGCCC TTGTTAACTG GCTCTGGTTG CTTTTTTCAT CGAGGCAATT
33701 TATCTAGCCT TCTAATAATT CAATCCAAGT TTATCTGGCA AAACATTCTC
33751 TGGATTGAAG GATGATGGAT TAAGTATAGG TGTGTTTAC ATTCACTCTA
33801 CTTACTTTCC CAAGTTTTCC TGATCCTAAG CTTACATCTG TAGTTTTGAT
33851 CTTTCACTCA TTTTAAAAAT CTCATATTTT CAGAGATCTA AAAGGAATTT
33901 CCACCTGAGT ATCTAGGCAG TGTCCAAAAT TTAGCAAATC AAATGGAAAA
33951 TATCCTTTTC TTGGGTAGAT ATCATTACATA ATTCTGAAGA CTGGTAAACA
34001 GTATCACATG TGACTGTCTT CTCTTTGCCC AGATTGTTTT CCAAAGTGGC
34051 TGTACCATTT TGCATTCCCA CCAGCAGTGT ATGAGGGTTT TAATTTCTCT
34101 TCATCTTCAC TGATACTTAT CATTGTGCTT TTTGATTCTA GCTTTCCTAG
34151 TATGTAGTAT GTGTAAAGTG GTCTCCTTGT GGTTTTGATG TGCATATCCC
34201 TGATAACTAA AGAGACTGAG TAGTTTTTAA TGTGCTTATT GGCCATGTGT
34251 ATATCTTCCT TGGAGAACTG TATTTGTTTG TTTTATATT CCCAGTCCCC
34301 CATCCAGAAC TGGGCATACT GTAGGGACTC AAAAATGAAA GTCATAAATC
34351 ACTGTAGTCA GAATCACCTA CAGCTCCGAG AACTCAGCTG AAACCTGCTA
34401 TAGATCAAAC TTTCCACACT TAGGCCTAGA GATCTACATT TAAACAAGAT
34451 CCTGGGGGTC CTGTTTCACT CTGAAGTTTG AGTAGCATTG CCTTAACTAA
34501 AGATTTTTTTA AACATCTGAA GAGCTTCAGT ATATTCAGAG GTAAACATGA
34551 TCTATGCTGT TCTAGACTGC AGAAGTGGGA CTAGCAGACA AGAATCACAG
34601 GCAGGAGCAC ATTTGCCTCAT TAAGTGGTGT CAAGTTGAGT TTAGCTGGCC

FIGURE 3, page 11 of 141

34651 CATCTGCCAC AGAAGGAAGT CTTGCATTGG GTAGAATGTA GGGCAGGTAG
34701 GGCAGGATGT AGTCTTTCTG GGGATGTTAT GCTATTTCTA TACCTGGTAG
34751 ACCCCATCTA ATTTTATTC TGCTTATGA TCAGATAGTG TATCTCGGTG
34801 TTGGCTATAT ATAAATGAC AAAGTCTCTT CTCAAGGACA GTGTGTAATT
34851 TTTTCTACT TCTGTTTCAT TTCCCTACTC TTGCTTTTCT CTGAGAAAGG
34901 GAAACAAGA TTTACCAGT TCTACACAA GTAATTTACT TTAAAGACTG
34951 CTAATACATA TGTATCCTCC TTTCTGTTAT CTTATCAGGT CTCTCGGATC
35001 CAAGCAACAA AATAAGACTT AGCATATTGA CCGGAGCCCA AAAGGAATTT
35051 ATTATAAATT TAATGGGTGG GTCACAGATT CACCAAGGAT TTCTGGAGGG
35101 CCAGACTAAG GACAACCTCC CTGCCATCAC TGGTGCTGGG GCCCATGGCA
35151 CTGCTGCCAT GGAACCTCAT CGTGCTGCCT CTGCTACCAC CACAGTGGCC
35201 TTCTTTGAGG CCCTCATTTCT TGATGTCATC AGCACCCAAT TCTGAGTCCA
35251 GGGCATCAGA CTGTAGCGTA CACCATGTTC AATCAAAAGA TAACTGAGTT
35301 GATAACGAAT GAATTCATG GGCAGTAGTA ACAGTAGGCA CCAAAGAGCA
35351 AGTAAACAA GTAAAAACA AACACAAAT AAAACCCAAA ACCCTCCTCT
35401 AGGAGCTTAC ATTTTAGGGG AAGAGCTGAG GCACACAAA CTGTTAGGC
35451 AACACATTC CCTATACCAA GGAACACGAT TTAGGGTGAC AGAACATGTG
35501 TGTAGCAGTA TAACACAGT GTTGTTGAGT AATTTTCATA TTGTGTGTA
35551 ACTTGGGAAT AGATGTACAT GGCAGCTCCT ATTTTCCCTG GAACTCTGAT
35601 CACCAACAA GGTATTCAAC CTTGTGATCT GAACCGGAGA ACCTTCCAGG
35651 TTAAAGGCTA AAAATGCCTT TGCAGACTTT CTCTCCTCTG CTGCCCTCTC
35701 ATTACTGTAG CCTGACTTTT TAAGAAACCA ACTTTGTTGA AGAATAATTT
35751 ATAGACAATA AAAGATACCC ATTTGAAATA CACATTCTA ATAGTTTGA
35801 CAAATTTGCA CACTGTGGTA GCCACCACCA GAAATAAAAT ATAGAACATT
35851 CCTACACCTT TAAAAAGTTA TCTTGTGCTC CTTCTAATCT TCCTCCACCC
35901 CAAACCCAGG CAAATACTGA TATGCTTCTG TGACTATAGG TAAGTCTTTT
35951 CTAGCGTTTT GAATAAACAG AACCATGTGG TATGGACTGT TTTCTGTCTG
36001 CTTCTTTCAC TCAGCATTTGT GTTTTAGAGA TTTAGACCA CAGCCTGATT
36051 AAACAAGTCG TGGTGCTAGT AGAGATGTGA CTCCACAGCT CTGACTGTCA
36101 AGGAGGAAAG GAACCACCAC ATCATCTCCT CTATTCTGGC CAGTTCCAGG
36151 CTCCAACCGA TCCCCACTAA TGCTGTAGTA GGAGACTCAG GCATTCACTG
36201 TAATCAACTA CATAAAGCTA GGCAAGAGAA ATGGAAGTAA AGGGATCTCA
36251 GGGCAGTGTT GGCCAGCTG ATGAAGATAA TCTCTCAACA GAATCAGAGA
36301 ATCTTAGGTA TGAATGAAGT TTTAAAAAAT TATTATTTT GTTATTTTAA
36351 GAGACAGACT TTTGCGCTGA TGCCCAGGCT AGAGTGCAGT GGCACAATCA
36401 CTGCTCACTG CAGCCTCAAA CTCCTAGGGT TAGGCAGTCC TCCTGCCTCA
36451 GCCTCCCAAG TACTGCGGAC TACAGCCACA TGCCACCACG CCCAGCTAAT
36501 TTTTCTACTT TTTATAGAGA GGGGTCTCA CTATGTTGCC CAGGCTGGTC
36551 TGAAGCTCCT GGACTTAAGC AATTCTTCTG CCTTGGCCTC ACAAAGTGCT
36601 AGGATTACAG TTGTGAGCCA CTGCATCTAG CCTGAATGGA GCTTTTACGT
36651 CATCTAACCC AAGCCCTTCA CTCTGTGGTT AATTAAGATA ATTCAGCAGA
36701 GTATTTTCTA TTCCAGGACC ATCTTCTCTA TGCCCTGAAT TCTGAGTCTT
36751 GAATACAGA CAACTCTTGG AGGGCAACTG TCCTTTTCTC CAGATGTAGT
36801 AGAAAGGAAG GGGACAGAGT GGGAAACAGA AGCAAGAAAA AGGATACAGA
36851 GATAGGATCA TGAATAGAGG AGGTGGATGG GTCAGGTTTG GGAATAATGA
36901 TTAATACAGT CCCGATAGAT AGGGTCCAGT TGATAGAATA CCTTGAAGTG
36951 GAGGCTTAAT AAGTTTGTG TGATGGGGAA TACAAGAGAA GATCTTTAGC
37001 AAGAGAGTGA CATAAAAGTA GTATTTGAAA AATGATTATC CTTGAGCTTA
37051 AGGAAATCAT AGAGTAACTC ACCAGCCAGG AAATTTACTA CAAGTGTAAG
37101 ATTACCCGTA TGACCTAGCA ATTCCATTCC TAGGTACATA CCCAAAAGAC
37151 ATAAAAACAT ATATCCACTC AAAACCTTGT ACACAAATGT TTACAGCAGC
37201 ATTATTCATA ATAACCAAAA GGTAAGAAACA ACCCAAGTGT CCATCAACTG
37251 ATAAATGGAT AAACAAAATA TGGTATATCC ATACAATAGA ATATTATTTA
37301 GCCATGAGAA GCCATGAAAT ACTGATACAT GCTACAGTCT GGATAAACCT
37351 TGAAAAAAT ATGCTAAGTG GAAGAAGACA GTCACAAAAG ACTACATATT
37401 CTATGATTCA ACTTATATGA AATATCAAGC AGGCAACCC ACAGAAAGAA
37451 AAGTGGTTGC CAGGGGCTAT GGAGAGTGGG GATGGGTAGT GATTGCTGAT
37501 GGATAAGGGA TTTCTTTGGG GACTGTGTTA GTTTTCCAGG GCTGCCATAA
37551 TGAATGCCA CAGACTAGGT GGTTTGAATA ACAGAAATTT ATTTTCTCAT
37601 GTTCTGGAGG CCGAAAGTCC AAGAATAAGG TGCCAGCAGG GTGATTTTCT
37651 TCTGAGGCTG CTCCTCTTGG CTTGTAGATG GCCACCTCCT TGCTCTGTTT
37701 TCACATGGCC TTTCTGTGTT TGTGCAAGCG TGTCCCTGGT CTCTCCCTCT
37751 CCTTATAAGA ACAACACTTA TATAGGATTA GGGCCACTC TGCTGGCCTC

FIGURE 3, page 12 of 141

37801	ATTTTAACTT	AATCGACTCT	TTCAAGACCT	TATCTCCAAA	TACAGTTACA
37851	TTCTGAGGCA	CTGGGGGTTG	AGACCAACAT	ATGAATTTTA	GGGGGACACA
37901	ATTCAATCCA	TAATAAGGAT	AATAAAGGGT	TCTAAAATTA	GACAGTGTG
37951	ATGGTTGCAG	ACCTCTGGGG	ATATACTAAA	AGCTACTGAA	TTGTACACTT
38001	GAAAAGAGTG	AATTTAATGG	TACATGAATT	ATGTCTCAAT	AAAACCTGTTA
38051	GTAAACAAAA	ATAAAACATA	AACTGGACAT	AGCTCTTGCC	TTCAAAGAGC
38101	TTATGAGACCA	GTCAAGGAAA	CAAGAATGTA	AATAGGCATT	TTCAACCCCT
38151	TGCAGGGCAT	GCTAGATGGA	GATGTGCTTA	TTCTATTTTT	ATAGAGTAGA
38201	GAAGACATTC	TGGAAGAGTG	AACGTTGGAG	CCAACTTAC	AGAATGAATA
38251	TAAATCTGGC	AGAGAAAGGG	TAGAGACAGT	GTGTCCCAGA	CAGCGGAATA
38301	GCATAAGTGA	AGGCACAAAG	GCATGAAAAC	CCTGGCATGT	ACAAGGAAGG
38351	AACTTTACAA	CACAGTTATC	ATGCCCTTGC	TAGTCTGCTT	TCTCTTGTTA
38401	TTATTTAAAT	TTAAATGCTG	GATAAAGATT	ACATTACAA	TGAGTAGAAA
38451	GAGCTTTGGT	CTTAAAGTCA	GACCTCCTGC	ATTTATATCT	CAGTCTTTCC
38501	ACTTACTTTG	GACAATTACC	TAAACTACCA	GTCTCAGTTT	TCTTATCTGT
38551	AAAATGGGGA	AAATAAGGAT	GATTCTATAT	GGTTGTAAGT	CTTAAATGAA
38601	TGACAAGGAA	AACATTCCTA	GCACATTTTC	ACAAGTTATT	CCTTGAAATA
38651	CATTAGCTCT	GTCCTACTCC	TTGTTTCTCT	GACTATTCCT	TGGATAACTT
38701	GGTTTTAAGA	CCCTCAACA	TCTTAAATC	ATTCCTGAA	CTAACTTTGG
38751	TGACCATAAT	CCCCTTGAAA	TGAGCCCTGA	ACACCGAGGG	TATGATGGAA
38801	CCAAGTGTA	TGATACTAAA	ATCTTTCATA	CATTTCAAAA	TCAGCCTGGA
38851	ATATTGGCTC	TTTtagcagT	CACATACTGT	TTCATATTGA	ATTGGGGTGG
38901	TGGGGGAGGA	AGTATTCCCC	TTCCCACATA	CTTTCCCAG	AGTTTTTATA
38951	GATGAGCTGT	TCTGCTGTTA	AGTCAGGTCT	CACCTCATCT	AGATTTGAGG
39001	ATTTGATTTT	CTGACTCTA	ACTATAAAGT	TCAGGTTTTA	GTTTGCAAAA
39051	TTTAGTCTTG	GTGATTTCCA	GCTCGTGTTC	CAGCTTCTTC	AGTCATTTTG
39101	AAAAGGTGAA	TTTCCCTTAT	GCCTATTGAT	TATGCTGTCT	GGCTTTGTGT
39151	CTTCTACAAA	CTTGGTAAAT	GTGTCCTTTT	AGATTTTCAT	CCAAGTCATT
39201	AATAAAATGT	AAGTGAGGAT	ATTGTTAGGG	ATCTCAATGG	CATTAGGAAG
39251	TACCACCTGA	AAAAATGGCT	AAGACACAAG	AGTCCAGCAT	ATTTGGTCTG
39301	CTTGTTTGAC	CAGCTATGAA	TCCACAAGAA	GACTGCATTT	CTCCTGTATG
39351	AAAAGGATAT	CACAGACTCA	TCTCTTTGAC	ATGTTAACAT	GGTTTTATCA
39401	GATGGGCTGA	AATCATGATA	TACCACAAC	AATTGCTTCT	CTGTGATCTA
39451	CCAATCAACC	CTCCACAGAA	AGAAATTAGG	TTAATTGGC	ATATTCTCCA
39501	TAAGCCCATG	TGAGCTCCTG	CTGGCCGCTG	CTTTATATTT	TAAATTCTCA
39551	CAAGCCATCT	GTTTAATCAT	CAGTTCTTCA	ATATTGCCAG	CGATTTGTGT
39601	CAGGATTATT	GCTGTAATA	TTTTGAAAA	TACTGCTCAT	AAAAATTGGA
39651	ACATGTACAT	GTGCTTTGGG	GACAGGGAGG	GCAGGAGGGC	ACCTCTCCCT
39701	TTTTTTTCCG	GATTATTTCAG	ACTATCAACC	TTGTGCAGAG	ATGTATTTTT
39751	GAGTTGTGTT	CTTGTTGTGA	AGCTCATTTG	ACTTTGACTT	CATAAACTCA
39801	GAAGGCAGCA	TCCCATAGGG	GTGAGATAGT	TAGATGCCCG	GGATTTGGAA
39851	GTGGGGGCCA	GGTGCGGTGG	CTCACGGCTG	TCTGTAATCC	TAGCACTTTG
39901	AGAGTCCAAG	GCGGGCTGAT	CACCTGAGGT	TAGAAGTTCA	AGACCAGCCT
39951	GGCCAACATG	GTGAAACCCC	ATATCTACTA	AAAAAAAATA	AATACAAAAA
40001	TTAGCCAGGC	ATGGTGGCAC	ATGCCTGTAA	TCCCAGCTAC	TCGGGAGGCT
40051	GAGGCAGGAG	AATCACTTGA	ACTTGGGAGG	CGGAGGTTGC	AGTAAGCCAA
40101	GATGACACCA	CCACACTCCA	GCCTGGGCGA	CAGAGCCAGA	CTTGCTCTAA
40151	AAAAAAAAAA	AAAAAAGAAA	AGAAAAAGAG	GATTTACAAG	TGGGATCTCA
40201	GTTCATTAT	TATTGAGTGT	GGTTTGTGAC	TTAACAGACT	CTGTGTCTTA
40251	ATCTCTCTGT	GTCTTAGTTT	CTTTATTTCA	AGAGGATTTT	AATAGTTTCC
40301	TAGCACAGTA	CATGGTGCCA	AATAACTGTC	TCATGTATGG	CGTTACTAT
40351	TGCCATAATC	ATCACCAGTA	TCACTATTTT	AGTGGGTAGA	GGTTTTCTCA
40401	TGATATATCT	ATATCTTGGT	CTTTGATTAC	CTCTTTAGGA	TATGATTTC
40451	ATCCTTTTAA	GGTGCAATGC	AGTTTCTTAT	AGCTTTTAAT	TATTTGTCTC
40501	TGCTCTGCCA	CTGGATTGCA	AAGTCTTTGA	AGGCAGAGGC	TGTGCTGTGT
40551	ACAAGTAAAG	TACGTTCCAC	AGATCAGGTG	CCCCATACAC	GTGCACGTGA
40601	TTAGAAACT	GGAATTAAGG	TAATAGTTGA	GAAGCTTTTC	TTAAGTTAGA
40651	CATCAAAGTG	CATTATTTCA	TATGTAAGTT	GGAATCTGT	TTCTGAATGA
40701	ATTCATTTC	ATAGAACAC	TGATGTTCTC	CTTGGGAAAC	ATCTTCACTG
40751	TTATGTGACT	AAAATTAATA	CTGGCTTATG	ACACTCGGGA	TCCAAAGATT
40801	GAATACCCC	TCGTAATAGG	CAAGAATTGT	ATCACATTAC	CATCAACAAC
40851	AGCAATAGTA	CTAATAGTAA	TAATAAAAT	ACCTTTCAAG	AAGTTTGGAA
40901	TTAAATTTGA	AGCTCAATCA	TAGCAATTA	TTCTGCCCAG	CATATTTGTT


```

40951 TTCTTTTCCC TATTTGTGTT CTATTCTTGC TGGTCTTAAT TTTTGTGTGT
41001 ATTATGTAAG TTATGTCAAA TTGTCTGTGA AATGAGGCTG AGTATAAATA
41051 CATTAAGGTA ATAAATTATG TAATAAGAGA TGTTCAAAGG GTCATTGGGC
41101 AGCTGTACTT TATCATTACT GGGAACAGAA CAAGAAGAAA CCAGTGCAAA
41151 CTATAGTTTA AAGAATTGGG GTTAAAAATGT AAGGAAGATT TTCTTCATAG
41201 TATTTTAAAA CGGACGGTTT TGGGGTCATA TCAGTGTGGG CTGTGGAATC
41251 TTCTCAGGAG GGCATGTAGT CCACTCCTGC GGCCTCTCTG AGTTCCAGTG
41301 TTCTCATCTG TAAGATGATG AAGCTGGACT AGCAGCTGTT CCCAGTTCTT
41351 TGTTTTTCAA TGAGATTTC AAGTTGCTGG GAAGGAGGGG TGAGTAGGTT
41401 GGGGGATGGA GGGGGACACA GTCCCTGTCT GTTGGTCTGC TCTTCAAATC
41451 CACCCTCTGT CCCAACCTC TAGAGAACAC TGGGGCTCTT CAACACTTTT
41501 AGCCCTGGCA GTCTTCCAGA CCCCTGCCTG TTCTCAGCCT TGCTACTCAA
41551 AGTATGGTCC CTGGACAAGC AGCTGCAGCC ATCACCTGAG ACCTGAGAAA
41601 TGTAGGCTCT CAGGCCCCAC TCTAGAGCTG CTGAACCAGA AGCAGCATTT
41651 GAACAGATCC TGTGGTGATT TGTATGCACA ATAAATTC AAGAAGCACTG
41701 CTCTAAGACC CTGTGTCCCT TCTTTGTATT CAAGTATCAC ACTTTTGTAT
41751 TCTAATGTTT TCCTTTGATC ATATTAACAT GAAAATATTT TGAATATTC
41801 TCAGATTCCA GAATCTCTAG AAACAAAAC CATAGAAAAC CACGCCCAAG
41851 CTTCTTTTTT TTAGTGTCCC TTAACAACA TTATGTCCTG AGGAGGATGT
41901 CTCTGCTGCA GAGCTCCTGT AGACAACCTG GGCAGGCGGG AGAAACCACA
41951 CAGCATCTCT GTGACTGTAG CAAGTGCTTT GTGACTTTGT GTGTGTTACA
42001 AATCAATGAC TAAATCCATA AGCTGTCAAT CAGGGAAACT AGATCCTTCC
42051 TAGTAGTAGA TTCTCCTTTG ATCTGTCTGT GTAGGTTATG CCCTGACTTT
42101 TTAGGTGCAC AAAAATAGAC TTTTATTGGG GTATAAGCAC AACTCAGCAA
42151 AAATATAAGA CCCAGAATCA GTGTTTAAAC CCTCTAAGGG AAGTATGCTT
42201 ATACAGAGTT TCATTTTCTT CCCTTTCCAT CTCAAACCTA AATGCAGTAA
42251 CAACTGGCTT TATCCTATAG TTAAAAAGTT GTAGCTCAAG CCTGCATATT
42301 ACACTTGCCA TGATGATGAA ATAGAGATTG AAATTTAGAA TTATAAACTT
42351 TTGCTATTTT GGCTGTCTTA CTGTTAAGAC AGCCAAACCA CTGCTATTAT
42401 AAACAAGGTT AAAGAACCTT ATTTTCACTA AACCCTAGAT TTTTATTATT
42451 TTTATTGTTA GTTTATTAGT TTAAACAAC TCTTGCCCTAG ATTATAATTT
42501 AATTTTACTT TAAACAGTGT TTATCTTTTC TCATTTTAC CTACTCAAGG
42551 AAATGGAGCT AATCAGCTTT TGTTGCTTCT TAAACTCAA TTTGTTACTG
42601 TATCTTGATT TTATTGTCAT CTGATTGTCT CATTGAAATC TGCAATTCTT
42651 GTATTTTCTT GTAATATTCA AAATACAAAC CTGGTGGGAC TGTAAACTAG
42701 TTCAACCATT GTGGAAGTCA GTGTGGCGAT TCCTCAGGGA TCTAGAATA
42751 GAAATACCAT TTGACCCAGC CATCCCATTA CTGGGTATAT ACCCAAATGA
42801 CTATAAATCA TGCTGCTATA AAGACGCATG CACACGTATG TTTATTGCGG
42851 CATTATTTCG AATAGCAAAG ACTTGGAACC AACCCAAATG TCCAACAATG
42901 ATAGACTGGA TTAAGAAAAT GTGGCACATA TACACCATGG GAATACTATG
42951 CAGCCATAAA AAATGATGAG TTCACGTCCT TTGTAGGGAC ATGGATGAAA
43001 TTGGAAATCA TCATTCTCAG TAAACTATCG CAAGAACAAA AAATAAACA
43051 CCGCATATTG TCACTCATAG GTGGGAACCTG AACAATGAGA TCACATGGAC
43101 ACAGGAAGGG GAATATCACA CTCTGGGGAC TGTGGTGGGG TGGGGGGATG
43151 GGGGAGGGAT AGCATTGGGA GATATACCTA ATGCTAGATG ACGAGTTAGT
43201 GGGTGCAGCG CACCAGCACG GCACATGTAT ACATATGTAA CTAACCTGCA
43251 CAATGTGCAC ATGTACCCTA AAACCTAAAG TATAATAAAA AAAAAATACA
43301 AACCTGGAAT GAATTATTCA TTAGAATATT GCATTTTGAA TATTAACCTA
43351 ACATAATTTT TAAATTTGGA GCATATAATA ATTGTAACAG AAGCTAACCA
43401 AATTATCTGT GGTAAATTTT TTTATATCCT TATTAACATT GTTATGCTCC
43451 TTAATTTCTT CGCCTGCATA AGTAGGATCT TTGCTGTAAG CTCAGAACTT
43501 CTCAAAGCGT AATGGAGTGA ATGAGTGATT TGTGCTTAG AGTCTTATGT
43551 TATCAATATT TATTTTGTGTT TTTAAGGCAT ATTACTACTT TTCCATTGTT
43601 TAACAATTTT AAATCAATGA ATTTTGCTCA GTTGAACCTT TAAAAAGACT
43651 GGCCCTCAAA CACACAAAAT TATACCTGCA GGGTTGTGGT ACTTGGAAAC
43701 ACCTCACAAAT GTAGACTTCA CCACCTTGTT AGGAGAGTAA GTCCTGAGAA
43751 AACTGCCTC CCTCTTCTGT ATGATGTCTT TTCCCAAACC TCCAAATCTG
43801 CGGTGCTATA ATTGGCAATA TTCCTAGCTT CCGTGAGATT TCTGTAACCTC
43851 TCAAATGATA ATGAAGAACA GACATAGGGT CATTAGTGCC TCATCGAAAG
43901 CAAAACCATT ATTCCAATCA CAACGACAAG TTGTTTTTGT TTTTTTCTTT
43951 TTTTCTTTAA TGCTAGGGAA GGAAGAAAAG CAGATGTCAG GAGTTTTTGT
44001 TCTTTGAAAA ATGAAAAATT TTAGACTGTC TTAATCATTA GACACTGAAG
44051 ATCTCTATAC TAACAGCAGA AAGGGAAAAC CATTAATCTT GGAGACAAAA

```

FIGURE 3, page 14 of 141

44101 GTCTATTCTT CAGAATTGAT GGTCTGTTTC CTCCTTCAAG AGGTAAATGG
44151 TGGCTCCATT GTAACCTGCT TTGTGACCTT GGATAAATTG CTTAATGTCC
44201 CAGGACTTCA ATTGATTGAG GTACTTTGAT TATCTGCTTT CTGAGGGTCT
44251 TGTCCAGCTT TAAAATTCTA CAAAAACATA AAATCCATTT CAAAACCTGA
44301 AAAGAAGCTG AATATGGGGG GAACACATTA AGAAAATTTG GTAGCTTTGT
44351 GCTTCTCTTG GGCCAGGCCA TTACAATGGG TATTATCATT TCTCTGAGAT
44401 ATTGTGAAAC ATCAGAGCAA AACCTTTTTT TTCAGGTATG AATATCTGCC
44451 ATTTTTTTGT CTATGCTAAT GTTATTATCA GCTCCACCG GTAATTCAGC
44501 TTCCAGATCA AAGCTATTCC AGCAAGTATG TTAGCAAGCA AATTTTTATA
44551 AACTTGCATT TTTAGTACTT TTTTATCTCC TATCACTAGA GAACTATAGA
44601 AAAAGGTATA TTTATTACTG TTTGTAAAGT GTATTTTCTT TTTCTTTTCT
44651 TTTTGGCAG GAGAGAGTGA AAACCAATA TTTTAAGAAT TCTTTTTTTC
44701 TTGGTCTTTT TCAACTCAGT ATTTATTTTA AAATCTTTAT ATTTTTTGAT
44751 TGGCGAATCA TCCATTCCCC TTGCTTCACT CTTTCTTTT TGGCCTCTCA
44801 TTTTAGATTA TCTTCTGTTT GCTATTATTA CTTCTATATC ATCACCTAAG
44851 GGAAGAAGGA TAACACTGGT GGAATTTTAA TAATTTTGAA TTCTGATGTT
44901 TTTAAATAAC TTAATAAAT TTATATAAAA TAATTTTGAA TTATGTTTTT
44951 AAATTAACAA AATATCATGT TGTTTTAGTT TTGAAATGTA CTAATAACAA
45001 AGAATTTTGA GTCATTTATC CCCCAGTTT TTTTCTCACA ATAGGTTTCT
45051 TTCTGTGTAG TTCCTGTAGT TTCATTTTGT CATGATTTT AAAAGATTCA
45101 TATCAATGCT CAAATAGAAA AGAGCCAAGT TATACATTTT TTGTTTAAAT
45151 TAGTAGACTC ATTAACCTGT TTCTAAGTAA GTAAGACATA GCCCAGTTCT
45201 CAAAGGGCTT ACCTTTCTTC TAATCTTTT ATACAGCATA GCTATACCTA
45251 AATAACTTTA TCATTTGGGT TTTTATAACC TTAAGCATTT ACAATGAGT
45301 GGAATATTTA CTGTACTACA TTCTCTACCC CTGATTCTAA TCTCTTCTTC
45351 TTTAAACATC TCCTCTTCTT TCTTGTAGCA AAGTGGTAGT ATCAGGAAAT
45401 GGCTGATGCT ATCAAAATGG CTTAAACAAT AAGAACTCT TGTCCTCCTA
45451 TCAAGAAGTC TAGAGAGAGA GCAATCTGG TTTGACTAAT TCAGCAGCTG
45501 AGCAACATCA TCAGGGACGT TGGGGCCTTC TCTCTTACCT CTCCATGTTT
45551 CTGCCACTCA TGTTAGGGTG GCTTACTTCA TGGCTCCAGC TGGCTGCCAT
45601 AGTTCAAGGA GTCACATGCA GATGATCACA TGCAGAGGTG GATTAAAGAA
45651 GAGTTTCTCT TCATGCTTCT CTTTTTATCA GTGAGGAACA TCTTTTCCAG
45701 ACCAATTATG ATTCACCACA GGAAGTAGGG GAGGATCCTC CTTTCCAGAG
45751 CATATGATGG TAGGGGTGTT GGGGGATGAC TGTGTGGGGT AGGCAGTCAT
45801 CAGTGTCTCT CACAATAAGG AGGCCACAAT ATTCGATGAC TCTGCCCATC
45851 TGTATAAATA AGAAAAATAG AATTGCTTGA CCATTTGTCT CAGGTTGTGG
45901 GGGAGAAAGA TAGGGACAAG GAGGAGCTGT ATATGATTTT AAGGGGAAGT
45951 TAGAATTGAC CCAAGGCATC CTTGGTTGTA AAGAGAACTT TTAGAGAAGT
46001 AAATAGAAAG AAGTTCCAGA AAGCTGTCTC CTCCATGAAG GGAATCCACT
46051 CATATTGTAG GTAAAAGAAG AGGGAAGGGC AATTTTTTCT CCACTCTTCT
46101 ACGAGACAGC CCCAGCAGCT TTTATGGAGG CTGTGACTTA GAAATGGGGG
46151 GGAAATGGCT GTCATGTTGT GAGGGCACAA ATGCACAAGC TTTTTTAACA
46201 CTGCCTGAAC AAATGCAGAC TTTTGTGCT CCCCAGTGAA TTAACATGCT
46251 CTGATGCATT TTTTGGCT TGGCTATCAA CTCTTTGGTC ATGTGCTTGG
46301 GGAAGGGCTT TGCATGACAC AGCGGTCAGA CATTTTATCT TTTCTCCATG
46351 TGACTTCCAG GAAGCCCTCT AGGGAAATGC AGGACATGGT CCATTTGGAC
46401 GCCAGCTCTA TTCTTGCACT GACACAAGAG ATTCTCTGCA GAGAACTCCA
46451 GGGAGCACCA GCACTATTTT CAGCCTTGAG ACATGTGCTC AAGTCATTTT
46501 TATTTTGCTT ATTTATACAG ATGGGAAAAG TCATAGAATT CACATGATGG
46551 TTATTAGATA TTTTTTATTC ATGCAATAT TGTCTTCAAA CCACCTACTC
46601 CTAGAATTTT TGTTTATCCT CTTCTGCTCC TTAATACTAA AAGGCAATTT
46651 GCAATGATTT GTTATAGTAC CAGCACTGAG ACACTGCATG AAAGTTGTCA
46701 CCACAAATGG AAATATAATC TAGACAGCAG CCAGAAATAG CATGTTTGCC
46751 AAACAAAAAT ATCTGAAATA ATTTTACTCC TTTTTTGTTC TTTATTAGCT
46801 GTATTATTAA TTAATTTGCTT ATTATCTGTA TGTAATACTC ATATGCTGCT
46851 AAAATATTTG TAAACAAAAT CAGTCTTGAA AAGCATAGTA AATGGAATTT
46901 ATCTATAGGT TGTAAATGGT TTGAGTTTTC ATTGTTGAAT ATTTGAGGCA
46951 CTTTATTTTA CTTTGTCTAG GAATCTTTAT TTGCTAGCCA TCTTCAGGAG
47001 TATAGGGAAA CCGGGCCAGA ATTTAAAATG GGAGGAATTT CCTTTATTTT
47051 TATCCTGTGG AAGACAGTGT TGGGGTCTTG CCTATATCCC CTGGGCACCT
47101 AACATTTTCT TATGCATGGA CTCAGCCTCC AACTGCCTGC ACATGCAATT
47151 CTGCCTGAGT GCTCTTTCTA GCCATTAGGA TTCTCTGTGC TCTGGCAAGG
47201 GAGAAGAGTG GAGGAATTAA TACTTCCAGG GAGCAATTTT AGCCAGTGAA

FIGURE 3, page 15 of 141

47251 TAATGGGAAT TGGTGGATTA GTATCCCAGC CCCATTACTC CTCACCCCTT
47301 GGGCAGGAGA ACTCTGAGGT TAATGTTCTA CACTAGCTCC CAGAGTTTCT
47351 TGACAGAATT AAGCTCCAAC TGCCCTCAGT GATAACTGTC TTGATGATAT
47401 ACCCTTTCAT GGCTTCCTTC CCCTCCTGTC TCACTTCCCC ACTTTCCTAT
47451 TACTTCCCAA ATTACTACTT GCATTCAAAT CCTTGTCTCA GGGTTCGCCT
47501 TCTAGGGGAC CCAATGAAG AGAGTCCTTC AGAGCAAAGC ATGGCTTAAT
47551 GGGAGGGTTC CTCATGCTTA TTTTAAAGAT CTTGCTATGT AAAGCTTAAA
47601 TATTTTTTGG AAAAAATGGG GAATAAATGG GTGGAGAGGA AGGAAGAAAG
47651 AAAACAAGGA GGGGAAGGAGA GGTTTATGAA CCTGACAGTT TTACAGTTTT
47701 ATATGTCTCT TAAAAAATAC TCCTCCTCCC TGTAACATTT TAATTCACA
47751 TTCCATAATG TATAGTGTGA TTTTGTGTAT GTGTATGTAT GTGTTTACTC
47801 TAAGGAAATA TACAGCATAT ATAAAAATAT GTAATATATA ATATAATGTA
47851 TAAAGTCATT TTTTAAAGA GCATATGCT GATTAACTTT CATAGCCTAT
47901 TCAGGTAATG CAAATGCAGA CACTCTTCTA CTGGATATTG ACTTATACAG
47951 GGCAATGGT AAAGAATGAT ACATTCATTT ATTTTGCTGC TTGAGCTCCA
48001 CCCAGGGAAA AGGCAATGCA GCAAGTATAA AGCGGTTTGC ATTTGCAAAA
48051 GTGAACATCC TGAAGCTCTA GTCCTGGGAT TTTGCCTTTT CTTCCTGCTC
48101 AAAGAAAGGT TAGGAATCCT ACTGCCCACC CCCAGCTCTA TTTTAGCATT
48151 TATCATGAAG TTGTCCAAC TTTTATATAC TTGTTGGCCT CCCCATGGGA
48201 CTGAGCTCTC TTGGAGGGCA GGAGTTTTGT CTTTTTCGTC TTTATATCTC
48251 CAGCACATGG CATGGTATTT GGCACATAGA AGATAGTTAA TAGACAGTAA
48301 AGTAACAGAA GCGTGAGATT TCCTGTCTCA AAGTCTTGG CAGTTTGTTC
48351 CTCAGTTGCT GATGTCTGCC ATGGGCACCT ACAGTTTGCC ATTCCTGCAC
48401 TGCACCATGA TGCCCTTTA ACCCTGCTG TGTCCAAAG CTCTGCTACA
48451 TGTTTGTGAT CGGGGTACGT AGAATGGACA AGATGAATTA GAGAGTTCTA
48501 ACCCCCGAAT GAGCTAGTTC CACGGGTTTA ATTGTTAAAA AACAAAAAGC
48551 AGTGCATATT GTGGCATATG GGGATAACCC ATAAAATAAT TTTGTCCTTT
48601 AATGTGACAC AGACATAAAA ATAATATTTT TGTTTTACCA AGGGAAGGAA
48651 AAACAACAGA AATAAAATGA AACTCCATCT GTAGTATAAT GTAGTATACT
48701 TGCTACTAAC CTCTACTCTT TTTTTTCCC TACCAGCTAT TCCTTTATGT
48751 AACTTTGTTT CCTGGCTTTT CCATTATTTT TATCAATGTG CCAATTTTTT
48801 AAATAAATAT TACTCTCTGC CATTATATAT CTTTTTCATG CCCCTTACT
48851 TTTAAAAGTT ATATATCATA TTAAAAGAGA TGAAATAACT TTAAACAGG
48901 ATGTTTTCCA CCATCAATTT CTATCTACAT GTAAATGGAG AAAGAATTAC
48951 CGCAGCCTTA AATACATTAG AAGAGTCTAA GGTGGAATG AAAATGAACC
49001 CAAATGAGCC AGACCTTGG AGGTTTGGCT TTCATTGCCC CAAAGTGTTT
49051 ACAGTTATTT TGGGTAACAC CTGAAAGTAC TTCTGTGATG CATAATTGCA
49101 CTGATCAGGA CTCCCAGGTG CAGGTAAGAG CAGCCACCCT TTGCCAGTTT
49151 AAGCAGAAAA GGATTTGTTA CAGAACACAG ATAGTTCATA GCAGTGGTGG
49201 GAGGGCTGGG GGAGCAGGCT AGAGGGCAGA ACATCACCAG TGAAGTGACC
49251 TAGTGCCCTT GAGCTCAGGG CCATGCTGTT TCTGATGACA CATATATTTG
49301 CAAAATGGAG ACGCCGTGCC ACCTGTGTTT TTGATGCAGC TCACACTCAC
49351 ATCAAAGTGT TGGGTGGATG CAGCTGACTG ACAGAACCTA GGTCACACAT
49401 CAGCACCCAA GCTCAAGAGA GGCTGGGAGT CATAGGGTTG GTTTGTCTGT
49451 TTTTATCTCT CCAGGGGAGG CAAGACTCAC AGCCCAGGGA TCTGCCACAG
49501 TGTAAGGAAG CTGTCTAAAG TGGGCAGCCA CAAATGACAA GTGTCTGCTA
49551 CAATAATGTC TCATGAAAAC AGCAGTAAGC AAATTGTGTA AGCTGTTTGG
49601 CCTCTACTAT TAAGAAATAC ATGTAGCAAA AAGATTGTAA GGAAATACAC
49651 AGAAATGTTA ATTCTGATAA TTTCTGTGTT GGATTGTGGG TAATATTTTC
49701 CTTATGTTGT GTTTTTAAAT TTTTCTATAA TGAAACTATT TCCTTGTAAG
49751 TTAGAAAAAA GAGACCTTCC CATTTAAGAA AGGCAGATAA AAATAATTCC
49801 TGCCCTCCTA GAGGGATGAA AAATCTTAAA ACCCCTGATT ATATTTCTA
49851 ATCTCTCTTT TAAAAACAG CAAATGATAA ATAAAAAAC ACAAAGCAA
49901 AATCCAAGC CAAAAAGTTA CTCGTTTGTG TAAGTTGAAA TTAAATTTTC
49951 CTGTGGCTTA GGCTAAGTGG GTACAGTAGC TGCTAATCAC ATCAGGCTCA
50001 CAGCTCTGAA ATCAGAAAGG CCTCAGACAT CCTTACCTCA ACTTTATAGC
50051 ATTCAATTGCA ATTTGAAGCT TTGAAAAACA CAACCATACA TGTTCACTGT
50101 GTTCACTGTT CATATGTTCC TCCAGATCCT TTCTCTTTAG TCTTGGTCTT
50151 TTCTTTTAAA ACTCAAAAGA CATGTGTTTG ACTCATATT CTGTAGTGAT
50201 TTCACTTTT ACCTGAAGCA GTGTATGCTG CTGGTTGAAT GGGGAAATG
50251 TGAAAAGATA TGTGAAATTT TGGAGAAAAG TAACCCTTAA TTAATATCTC
50301 AAAGATATCA TCTTCCCAT TTCTGCAAAA GGTAGGCCAA TTTCAAGGGA
50351 ATGAAATTAG CCATAGTTAT CCCGAATTTT CAAAGTTATT CTCAAAGTTT

FIGURE 3, page 16 of 141

50401	GTCAAGTTAC	TGATGCTAGA	AAGAAAGAAA	GCATGTAAC	TGGGAAGTCT
50451	CCGGGGATGC	CTCGTTTTGC	TACTGTCTTG	AAATTTCTCC	TGAGTTGAGG
50501	CTCTGATAAA	ATAAATGTCT	GTCATGTTAT	TTAGGAGGGG	TGACAGGCTG
50551	GAATCACTGA	GCAAGTGACA	AACTGTCCCT	TGACTTGGTA	AGTTTCCATG
50601	CTGTCTTTGG	CTGATACAGA	TCTCGTATTA	AGTGATATGC	ATAAGAGCTT
50651	TCCTCTGTCA	GCTCAGTGAC	GTGATTTTAG	GTAAGGAAGG	TGAACGCTCT
50701	CGCATCAGCT	AGAGAGATTA	TAATAGATAT	CACCTGTCTT	AATAGCCCTA
50751	CCTTCATCTG	CTAAACTGTG	GACAAATGAG	ATTTTATGCT	TTATCATCAA
50801	GGTGCCAGAC	GGGGCTCAGG	TATTTACATT	TTATATGTAA	AATTGCTCAT
50851	GCTCTGCTGC	ACAATAGTTG	GTGTTTGCAA	GGAAAAATAA	GTATCCTGAA
50901	GCTTTTTTGA	GCATTTTATC	CTTCACAGCA	AGAGAATATT	GCAAGTTGGT
50951	AAGACTTTAT	ATTGTCAATG	TTAACCACCTG	TGACTTTTAT	AGCTGCATGC
51001	TAGCTGGGGT	ACAGTAAATT	ACTGAAAAGC	TCATATGAAG	TGCTTTTGTG
51051	CTTCGCCTGC	TGCTTTGTAA	TCTTCAGTAG	TTAAAAAAG	TGTCTTGTAT
51101	GTCATTTCTA	GCTTCTTTGG	GTATACTAAC	AGTCTGAAAT	GCCACTCCTA
51151	ATAACATTAG	GTCATTTTAA	ACCAAATTCT	TGATAGAACA	GCCTTTCTTC
51201	AGAGTGTTAC	CAAGCAGGCA	TTTCTCTAGA	ATCTACTTCT	TATTAATAG
51251	GAGCCTAATA	GGCTGTTTTA	AACCAATGTG	AAAACACGTT	AGGGGAAGGA
51301	AGACAAGTGT	TCCAACTTTC	TGTATTGCAG	TCACATTTAA	AGGACCTGT
51351	TAATGGCATA	GTTGAGTCTT	TGCCTGTGAG	GTTCCTGAGG	CAGAGCTGCC
51401	CTTTCTAATG	CAAATTGGCC	TCCTCTTTGT	GGAAGCAGCT	TATGCCTGCT
51451	GTTGGTTGTC	TTTTGGGAAT	GAGATGAGTT	CAGAATGGGA	AGACCATGGA
51501	GAATATTTAA	AGTGAATAAA	ATATTAAAG	ACTCAAATTT	CAGGGGAAGT
51551	GACTTCCCAG	TAATGGTCAT	CTGGGATTAG	AAGGTTTTCC	TTATGAGATT
51601	TTTTGGAGAAT	GGAAACTTAA	CCCAGCTTTT	ATTGCTCTGG	GAAAAAAAG
51651	GTCAAACGTT	ACCCAACCCC	GGAATAGGAT	AAGGGCACTT	TCTACATTTT
51701	CCTACTTAGG	CTCTCAGCTT	CTAGGACAGA	TTTCCTAACT	TAGAATTGTA
51751	ACGAGTTTTT	AATTTTGTTC	TGTTTTGTTC	TTTTAATTGT	AGTCTCTCAC
51801	TGAGAAATGG	GATGGGGGAA	TACTATACAA	TAGTGTGCTG	ACTGCAATAA
51851	CAAACTCTCT	AGACCCTGAA	TATGAACAA	GAAGAAAGCT	CTACCTCTGG
51901	TAATGCCTGA	GGATATTACG	GTTCTTCCAT	TGTAACAACAG	AGCGAGAGGC
51951	TGTGTTGAAT	TACTGAGAAG	TTAATAGCAT	AATCACATTT	TTAAAAATGG
52001	TAGAAGCTCT	TCTCTCCAAT	GTGATTGAAG	CTGGTACTTG	GTTAAAAAAA
52051	GGAACAATTT	TTAAAAATAA	ATGACATTAA	TTAAACATT	TACATCAACT
52101	TAAAAATATAT	AACTGTACAT	TTTCTCCAGT	TTTTGGCTGT	ATAGCCAGCA
52151	TCCAATGTCC	TCTGGTTAGA	GACTCCTTCA	TCTTTTTTTT	TTTTTTGCAT
52201	AAACTACATC	CATAAAAATAT	ATATTATTTT	TATATTATTT	TTTTAGACCT
52251	AGTTTCTAG	ATTATTTTTC	TGTAACAATC	TGAATTFCAG	ATACTAGATT
52301	TTACATTTT	TAACCTTTTT	AGAAGTGTCT	TTTCAGTTAC	TTGACAGCTG
52351	TTTATTTTTG	CAACTTTTTA	TTTTCAAGTT	TTTTGGTAAT	CATTTGACTT
52401	AGTTTTCCTA	GCAGAGATAA	CTTTCACGCT	CACCTTTCAT	TTAAGTTATA
52451	TTGAAGTCAT	AAATTTACAA	TGATGAGCAT	AACTGGCATT	AGCAGGCTTG
52501	GGAATAAAC	CAATGACTTG	GTAAGCATAC	ATCTCAAGTG	GGAGGCGAGA
52551	AGTTCAATGG	CATGCCAAGG	AGAGCTTATT	AGCTGGAGGC	ATTCCCTGTG
52601	GCAAGGGCAT	CTGTCAGCAT	CTGTTAGGAA	GGACTGGAGA	ATGATGGTTA
52651	ATCTATGCAT	TGGTTAAAGG	GCCTAAAGAA	ATTTTCTACT	ATAATACATT
52701	TTTATTGATA	TGCATAAGTA	GCAACTCCTA	AAGAAGATTT	TTGTAAGATG
52751	TTTTCTAGTA	CAGGTCTCTG	AGAAGTGTCC	CTAATGAAT	GCCCAATGCT
52801	GCTTATAATC	ATCAGACTGT	GTCTGCAAC	ATAATTTGGT	TTCTAAGATA
52851	TTTTTTTCTA	TAGTCTAGTT	CACACTTTGG	TACTATAATT	GATTGTGTTA
52901	TCAGACTCTT	TTTTTTTCTA	GATGGGAAGA	GATAATGTTT	TGGTCTATTG
52951	CCAAAGAGTT	ATCACAATTT	TTAAATTAAT	GACTTGGGGA	TTTAATGAGC
53001	TCTTCTTTCA	TTTATACATG	TTAGAAATAC	TAAATATCTC	TATTATGTTT
53051	TTTAGTTAAT	TTTTCTCTGT	AAATACTGGT	AGTAATGAAG	TATGATATGC
53101	CAAGGATAGT	TTTTAAAAAG	AAATAAATAA	ATATTGCTCC	TATTGATATT
53151	AAGTCGATAT	ATTTGGAAAA	TTTTAAGCTG	AGAGAGAGAA	GCATGCTGT
53201	GAGTGTGTGT	AAATACATGT	AAATACATAC	ACAGAGGCAA	AGAGAGACAC
53251	AGAAAGAGGC	AGAGACACAG	AAGGAAAGAT	AGGCAAGAA	AGAATAAGAT
53301	ACAGGGAGAC	AGAGTGATGG	ATTACATATA	TATATGTGTG	TGTGTGTTTG
53351	TGTGTGTGTG	TGTGTGTGTG	TGTGTGTGTG	TATGAACACA	CATAGAAAGA
53401	GACAGACAGA	AATAGATAAC	TATAAGAGAA	ACCAAGAGAC	ACTGAAACAT
53451	CTAGAGAGGT	GGAGGAAGGG	CCAGCCGAGC	AATATTGCTC	AAGATTAGTT
53501	CCATGGCTGC	CCTTATAGAA	CTGTAGGATA	CACAGATGAG	GAGGTGAGAG

53551 GCCTTGGGGA AGCAGGACAG GAAAACAGGC CCAGGTCCCA CCAGGAGACA
53601 CAGTGTGATA ATAGGCAATA CCAGATATAT GAGTAGGTCA CAACCTGGGC
53651 ATTAATTAAT GGCTCTGTAC CACTTGATGA TATTTGTAA ATGTGTTTTT
53701 CAGCTCTAAA TGTTTTTAA ATTTTTTTTG ATCTCAGAAA GGACTTAAG
53751 GAAATATCTG TTGGAGAACT AAATCCAAAT GAAACTGTAC AGGCCAATTT
53801 GGAAGCCCAA CTCCTCTCCA AGCTGGACCA CCCAGCCATT GTCAAGTCC
53851 ATGCAAGTTT TGTGGAGCAA GATAATTTCT GCATTATCAC GGAGTACTGT
53901 GAGGTGAGAC TCTCCTTTTC TCTTGAAGT CTTTATAAAA ACTTGCTGAA
53951 TGGTAAAAAG CCTTCTGTAA AGAGATCTTA AAAGTCCAAT TATCACACCA
54001 TAAATTGAAC TGTAAGACCC TGGGATCCCA TGTCTTGCAG CTAAGAATGA
54051 TTATCTGTAG ATAATTGACA AAACCTGTTT CTAAGGAAGG GTTTTTCCCT
54101 CCATTGGCAA ACTCAGTAAA AAAGAATATA TTTTAAGGTG GAGGCCAGGT
54151 GTGGTGGCTC ATACTTGTA TCCAGCACT TTGGGAGGTT GAAGTGAGAG
54201 GATTGCTAAT CCAGGAGTTC GAGACCAGAC TAGGAAACAT AGTAAGACCT
54251 CCATCTCTAC AGAAAATTAA AAAAATTAGC CGGGCGTGGT TGTATGAGCC
54301 TGAGTTTCCA GCTAGCGAAG AGACTGAGGC AGGAGGATTG CTTGAGCCTA
54351 GCAGTTCAAG GCTTCAGTGA ACTGGGACCA TGCCATCGCT CTCCAGCCTG
54401 GCGGATAGAG TGAGACCCTA TCTCTAAGAA AAACAAAAAA CAAAAAGGAG
54451 AAATTACTGC AGAAGAATGC ATCAACAATT TTTTGATAGG GGAAGGGCA
54501 AACCTTCTAG AATGGTCTGA TGCTTAGACG GACATTTAAA TGCTCTAACA
54551 GATGCTTGGT TAGAGTAGAG GTATATGTCC TGAGTTTTGG ATTCCAGCTC
54601 TATGGTTTAA TTTCTTCAGT GGAAGTTTGG AAATGGAAT ATGGCTTTTT
54651 TCCCCACAAG AATTCCTCAT ATTTATCAAT TTGTGGTTTA CAGCTGAAG
54701 TATTTACAGT TTTTCCAACC ACTCTGAGTT CTATCCAAGT AATAGCTGTG
54751 TATTTTACTG AGCCCCAAGG GAGTGTGAAG CTGCTTAGAG AAGTGGGAGA
54801 GGGGAAAGTG GACAATGTGT AGCTGCAGTG TGAATCTGTG TGTTTACTCC
54851 TGAGACATTA TGGAGAGAGG ATTGACAGGG CTTGGGTGAG GTAGAGAATA
54901 CCCAAAGATG ACTACGCTCA AAAAGTATCT CCCAGAATAT TATGGAAGCT
54951 AGGGTTAGCC AAATGCACCT TGGGAGAATT TGGTACTGTT CATACTTAG
55001 GATGAAGTCA GCTTATCACT TGGATGTTGC TGGAGCCCA AAGACATGAG
55051 GGAAAAAAGA TGCTCTTTAG AGTAGACGGC AGTTCTGTTT GGGCCAGAAA
55101 CTTTGGACAA CTCGACCTAA CTTGAAGGTG CCATTTGTTT GAGAGAGAGA
55151 AAAGAAGAGA CAGGAGAAAG AAAAGAAGCT CAGAAGGAAA AGGGATAGCA
55201 GCGAGAACAA CCTTGCCTGC TTTACACATT AGCTGATGTA TCACCCAAAA
55251 TGAAACCAAT AGCCAAGTTA AAATATCTGA ACAAGTTTGA AATATTCCAT
55301 GTCTTGGCCA TTCCCTTCA GGTGAGCCTC AGCCTTGCTG GGTATTTTCC
55351 CATCTATGTC TTGACCCTGC TTTGCTTGGG GGAAAGTGA CAGGGTGGAG
55401 GGTGAGTGGG GAAGAACCAG GTCATTTGGA TATCTGGTTG TCCATCATCC
55451 AGTGGATTGC TGAGAAAATC AGTAAGATGA TGTCAGGTGT GATCAGTGAT
55501 ATTGAATATT TACTCTGGCA AATATGTCAC CAATTCTGTC AAAACTACAG
55551 ATACTTGCAT ATGCATATGT TGCATACTAT GATCCACCTG CTATAATTTG
55601 TTCAATTTTC TTCTTTACCT CTTTCAGTTA ATAACTGTG TTATTTTGA
55651 AACCACTGAC TCATCTGCT TATACTATT ACTGCTACCT CTATTGCTGC
55701 TTTTAGGACA TTGACTTTTT CAAAGACTCT TTCCATGTCT TAGAATATTT
55751 TAACTGTAG TCAGCACTAT TTCACAGAAC TTTCTGTGCT GATGGAAATG
55801 GGCTATAGTT GTGCTGTCTA ATATAGTAGT CGCTAGTCAT ATACATGGCT
55851 CTTTAGCACT TGCTGTGCGG ATAGTGCAGT TGAGGGCCTG GATGTTAAAT
55901 TTTATTTAAA TTTAGTTAGT TTAAATTTAA ATAACCATAT GTGGCTCCTC
55951 GCTACCGTAT TAGACAACCA TAGTATATGT TGCTATAACT TTCTTTCCCT
56001 GTATTAATTG AAAAAATTTA TAATTTTAAAT GTAATTTTAA ACTACCAGAA
56051 ATGTTACAAG AGTAACACAA TGAACCTCCA TATGCCCTTT ATCCAGATTC
56101 CCAAATTGTT ATTTTCCAC ATTTGCTTTA TCTTTCTACC TACATTTTTT
56151 AATGAACCAT TTGAGAATAA GTTTCAGACA TGATGCTCCT TTGTCCTAAA
56201 TATAATACAG CTGTGAGTAT TTTCTAAGAC CAAGGACATT CTTTTATGTA
56251 ACCATAGTAC AGTAATCAAA ATCAGGAAAT CAACAGTGAT ACAATGCTAG
56301 TATGAAACCC AGTGGTTCTC AAAGTGTGAC CCGAGACCAG TATCATCAGC
56351 ATCACTTGGG AACTTGTCTAG AAATACAAAT TCTTTGCCTC TACCCAGCC
56401 AGCTGCATTG AATCAGAAAT TCTGGGGGTG GGGTTCTGGC AATCTGTGTT
56451 TTGACAAGCC TGCCAAATGA GCCCAAAGCA TACTGAATTT CGAGAATCAC
56501 CCATCTAATT CACAGTCTAT ATTGTCTGAA TTACATTCTT AGAAGGGACA
56551 GTTCTATAAG ATTTTGTGTT TTGTTGCAGA GGATCTCATC CGGAATCATC
56601 TGTGTTGATT TTTAAATGAT GGGTGGTTT AGTGGGCTGA GCTGCTCTCC
56651 CGGGAGGGGC GTTTGCCATG GTGATGGCTG CTGGCAGTGC TGAGAGACAG

FIGURE 3, page 18 of 141

56701 CTGTGGGGCC GCCTGGGCTC TGTGTGCCAC TGAGCTGGCA GGTGCGCACT
56751 TCCTGGGACT CCTGAGGAGT GACTTGACACA GATTGCTCCG TTCTTGTTAA
56801 CAGAGATATT TCTCATCATC AGACCCAAAT TACTCTTAA CTGGCACAGG
56851 GCTGGTGTTA TCCTTTTTAT TAAGGTAAAA TAATAGTATA GGAAATGGCA
56901 GGTGACCAAA ATTGCACCTC ATAGAAAAAT GCTATCACTA CCATTGAAAT
56951 GGCTTATCTC TTTATCTCCA GGTTCCTCT TCTGTAATTT AATTTGGGGC
57001 CTTTCAAGAC TGAAATATAT AAATGCATTA GTGAGGCTTC TGCATCTACT
57051 ACCTAACCTC TTGGACACAT ACATCAGATT ATGAGTGTAA AACAGCAGAC
57101 AACTGAACTC TCATAATTTT TGGTCAAGAT TTAACCAAAT CTTTGATGGG
57151 GAATAGTTCC AAAACTACCA GAATGGCAGA ATATTTCAAA TATTGGTGTC
57201 TTCTATTTTC CTCCATGTAG GAAGGAAATG GAACTACTGC CCATCCTCCA
57251 CAGTTTCACA CCTTTTCATC TTTGCTTAGG CCATATCCTC TGAGAATGCC
57301 CTTCTCTCTA GTCCACATC TTCAAATCTT ACCCTGACTC CCAGGCCAG
57351 CTTAAATGCC ACCTCCTCTC TCATAATCAA AGTTTCCAAT AAACAAGGTT
57401 CCTTCCCAT AAACAAAGCC TCTCATAAAC TCGTGGCTAG AAATCACTCC
57451 CCACCCCAAT CCAATCCCC TCAACTCTCA CAGAATCTTT ATCTCTCATG
57501 GTACAAAGCA CAGTTTACAT CATATGAGCC ATGTCAGATT CTCAGCATGT
57551 GGGATTGATC TTTTCTGAT TCATTTTCT ATCACATCGT GGACCCACAT
57601 AGTGAACCAC AAAGAAGTTA GCACTCAAGA TATTTTGTGA TGTATTCTTT
57651 ACCTCTTGGT TCCAGCTGCC TCCCACCTGA TTTCTGTCAA AACTAATGG
57701 TAATGATAAA ATATTGAATC CTCTACCTG TTGTATATGT TAAAAGTATT
57751 TTGTCTACC TTAATGTGCT GATATACCTA ACAATGTGCT GCACTGGAGA
57801 CCTGTGAGT ACTGCCTGAA AGTCTTCCAT TTGGGTGAAG ACAAGGCATC
57851 TCCAGAAACC TAGGCATTAA ATTAGTAGAC ACCTAGAGA ATGGGTGAGA
57901 TCACATATCT TCAGGAGAGG GTGGTGGTAG TGGTGTGGT GGAGAGAACA
57951 TATGATAGGG AAAAAGGCAG GAAATGTTGG ACTTCTCTAT TTTCTGCTTG
58001 GTGACATTAA CATAGGTAAA TAAAAATTT ATCAATGTAG TACTAGTTCT
58051 CAACATTGGC TGCACTTAG AATCACCTGA AGAGCTATCA AAAATCCTGA
58101 GGCTGAGGC CCACCTCTG AAAGTCTGAT TTAATTGATC CTCGGAATG
58151 GCCCAGGCAT CAGGTTTTG AGAGTTCTCC AGGTGATTCT AAAATGCAGC
58201 CAGGCTGAG AATGGCAAAA TAAATAATTT TAAAAATTCA AAAGGAGAGA
58251 ATAGTTAGTG TGGAATAGA CAAATAGTCA TAAAGGAAAA ATTTGTCATT
58301 ATTGGTGGAG CACTAAGCAA AGATGAGGCC CAGAGCTGAG AACAAGAGAG
58351 TCTGGCCCTG TAGTGAGTGT AGTTTATGA TCAAGCCATT TAGCCTGTTG
58401 CTCTTATTCA CGAAATTGC ACAACTTGTT CTCCTTGCTT CCCAGGCAAC
58451 CTTCTGATCC TAATTTAGCT TTCCATATAT GTCTCCTCTA ATAGGAAAAA
58501 ATATGCTGGC TAACCTGAGA TGAGTTCCCT ATTGCCTTGG CAGTTTTAGC
58551 TCTCATTTG TATGAATACG TTGGCAATCT GGATTATTTA TTGATGCCTT
58601 ATGAACTGA AGTTCACAAT GGCAATTGTA ATCAAGGGAC TTTCCAAAAG
58651 CCATTACTGA GCCCAGATC TGTGTCAGAT ACAATTATAG TCATTGTGTG
58701 GCATAACAGA GATAATATGA TAATATTTAA TGAATTTTCA GGTAGGATTA
58751 ATGAGTCATT TATATCAGTT GCTAAAATAC AAGGGGAGT GTGGTATGTG
58801 TTATGGGAAG GGTATGGTTA AAGTGCTGTG GGGGTAATAG GAGAGAGAAA
58851 TGACTTCTGA CCATGGGAAC CATGAAGGGG CTAGCATTCT ATTTGAGTTC
58901 GCAGTACGGG AAAGATTAGG CCAAGAAGAA TAGAGCAAGG ACATTTGAGC
58951 TAAATGGAAT GATGTGATAA AAGGCTCAGA GGTAGAAAAG CATGGGATGT
59001 GATTTAGGAA CCCAGTACTT CACCTTTAAT TGTAATATGT TTGCAGTTAA
59051 ATACATTCCC TAATTTTAAAC AACTTATATA ATCATAGTAT AATTATCAAA
59101 ACTAGGAAAA TTAATATTTT ACTAGTTTTC CCCTTATGC CTTTGGTCTA
59151 TTCTAGGATC CAATCCAGGA TTCTACATTG CATTAGTTTC TATTTCTTTA
59201 GTCTCCTCTA ATCTGTGACA ATTTCCCTTT CCTGCCTTGT TTTTATGAA
59251 TTTGACACTT TTGATGGGTA ACTGGCAAGC TATTTTGTAG AATGTCTCTC
59301 AGTTTGGGTT TGTCTAATGT TTTATCACGA TTAGATTGAG GTTACATATT
59351 CTTGGCAAGA CTACTACAAT AGTAGTATTG TATCTTCTC AGTACATCAT
59401 ATTAAGGGGT ACCAGCTGTA TCTTATTACT GATGATGTTA ACTTTGATCA
59451 CTTGGTTAAG GTTCTGTCTT GTGGGGTTTT TCACTGTAAA GTTACTATTT
59501 TTTCCCTTTG AAATTGATAA ATATCCTGGG TAAGATAGTT TGAGAGTTTT
59551 CTATTAATAA TAGCCTGTTT CTTTTCAAAT CTTCACTCAT TAATTTTAGT
59601 CTCTTTCAGT GAAGTTGCCT GTGGCGATTC TTAATCTCTA TTCTTTACCT
59651 AATTGTGATT ATATATTTCT CTCAATCTTT CTGTATTTAC TAATTGGTAT
59701 TCCACTGTAA GGAAGAGCTG CTGCTTCTCC TCCATCCATG TATTTTTCAT
59751 GTTATTTATT TATATTAGTA TGAACATG GATTTTAAAA TATTATATGG
59801 GTTACACCCA GTACCGTCAC TGTTTATTTT GTTGCTCAAA TTGTTCCAAC

FIGURE 3, page 19 of 141

59851	TTTGGCTAAT	GGGGTTCCCT	CAGATTGGCT	CCTGTGCTT	TTTAACATCG
59901	CCCTATCCTT	TTTTGAGGAG	AAGTAAATTC	TTGCTTATTA	ATTCCATTTT
59951	ACAGATGAAG	AAACAGGACC	CCAGAAAGTG	GAGTGATTTT	CTGACTGTTA
60001	AATCCAGGGC	AGAACTAGGA	CCAGGGGTAT	TGGGATAGAT	GCTCCTTTTC
60051	TTGGCTTATT	CTCAATTATT	TTCAGTGTCT	TTATCCATCT	CTATTTCTAT
60101	AATACATATA	CATATTACCA	TAAACTATTT	GTACACAAAT	GCAAATTTTA
60151	ATGTGATGAT	ATGATTATTT	TCTCTCAATT	GAAAGCTAGA	TAAAGTTTTA
60201	AATAGTGGA	AGTGTGTAGA	CTTTGGCATC	TTCTATTCAA	ATCTTTGTCC
60251	ATTTCTCTCA	GCAAATTATT	TCATTTCTCT	GACCCGTTTT	TCTTAAGAGA
60301	GTATAACATA	TATTTTGTTT	TTATAGGGAT	TTGAAATAAT	GAATGTTGAA
60351	AAAGTGACTA	TCAGAGCTTT	TCTCCTAGTA	GATTTTCAAT	AATGAAAGTT
60401	ATTATAATTG	TTCGTATTTT	CAGTGTTACT	CACCCCTT	TCCTCCCTCC
60451	GGCTGTTTTT	TGCAAGTAAA	GCTAGTTTTT	ACCTCTGAGA	TTTTGTCTGT
60501	CAGCCTTTAG	TATGAGGATT	CATGCCAAAA	GGAAGAAATA	TGCAAAATTCT
60551	TTTTTTTTTT	TTTTTTTTTT	TTTGAGACAG	AGTCTCACCT	CATTGCCAGG
60601	CTGGAGTGCA	ATGAATGGCA	CAATCTCAGC	TCACTGCAAC	CTCTGCCTCC
60651	CAGGTTCAAG	CAATTCTCCT	GCCTCAGCCT	CCCGGGTAGC	TGTGACTACT
60701	GGCGCGTGCC	ACCACGCCCA	GCTAATTTT	GTATTTTTAG	TAGAGATGGG
60751	GTTTCTCCAT	GTTGGCCAGG	ATGTTCTCCA	TCTCTGACC	TTGTGATCCG
60801	CCCACGTCAG	CCTCCCAAAG	TGCTGGGATG	ACAGGCGTGA	GCCACCGTGC
60851	CCGGCCGCAA	ATTCTTAACC	ACTAATAGGC	CTGCTAGTAA	CTTTGAGGCA
60901	AGTACTTTCC	GAAGTGATTG	TACTATAAAA	CGGAACATTT	GAAATTTCTT
60951	CATATGTTTC	TTTTTTATGC	AAAAGTATTT	AAACAAACCA	AGTAAGCGGG
61001	TTGAGTTTTG	CAATCTTGAA	TCTCTAGTGC	GTGTCAATAG	ACTATTAGAA
61051	GTAAGTTTTG	CAATGACGTG	CAGCCACAGC	GCTTACTAGT	TCTCAGAGGG
61101	TCCTTGTAGA	ACTTCATATT	GGGTGTGTTG	TGTCCTAGTAT	TAGAAACAAA
61151	TCCTTTTCTG	TGCTTCAGAA	CAACTGCTTA	TAGTCTGAA	GCCTGTTTGG
61201	GACCACCACC	CCCCAGAATT	GGTTATTTAT	AGATGAGGAA	CACCCCTGGA
61251	ATTTGACCAT	TGTGACATTG	ATTGGTGATC	ATCCTTCCTA	CTGTGAACTC
61301	AAATCAGGCA	TCCACACATT	GGGGCTGTCC	ACACCTCAGG	ACTGTCTTCA
61351	TGTGTTTGCA	TTGCTGGGAT	TGCTGCTGAT	TGAAGGAAT	AAGCATTTGT
61401	TTCAGAGTGG	TGGGATCCCAT	CGGGGCCCTC	TGATTTTCTT	GGGCAGCTCC
61451	ATCTAGGAGT	AGGTAGGCCCT	CCCTGAATTT	ATCCTGTGTC	AATTCTATGG
61501	GTCTAGATTT	TGTCCAGTTG	GGGAAGGCTG	TAAATAATAC	GAGTGTCTAA
61551	TGTTTTTATA	TACCTAAACT	GATCCATTTG	TGATTTTTAT	AAGTATCAAA
61601	ATTAAGTCA	TTTGGTTTGT	TCCATTTACT	TTCTTTCTTA	AACATGAAA
61651	TATTTTGACC	TTTTAATGAA	AAACAATAAA	AAATAAGACC	ACTGATTTTT
61701	ACCTAAAATT	GTTAAATCTA	ACAATTGAAA	AGCAAGACTA	TTTTCATTGA
61751	AAAGAAATGC	ACTAATGCAC	TAATAGAAAG	CAATCTGCAA	ACCCAGTAGA
61801	GTTTATGACA	TTTGGGGTAA	GGCTTTAGCT	GTCAATAGAA	TTTATATAAA
61851	TACAAGTGTT	TAAAAATAGA	ATCACACTAA	TTTATTTCAA	ATGGTTTTTT
61901	TTTAAAAAAC	CCTGTGCTTT	ATAGATAAAA	GCATTTATTT	ACATTATTTT
61951	ATATCACTTA	AGAATAAGTT	CTGCCATTTT	TTATTCATCT	ACATTTACCT
62001	CAGCAAAAAG	AACACTATCT	CTAAAAGAAT	TTGAAAAAAA	TACTAACTAA
62051	ACTCAAGATG	TTCATTTTATA	TTATTAGAAA	TGAAAAATCAT	AATACTGCAT
62101	GGCATTCTTC	AGTACCTATT	TAGAAGCTGG	TTTTTTTCTT	GTTTTGCTTT
62151	TAAAGACATA	ATGTGGCTTG	ACATTTCCCC	CACGTTTAT	GCAGTCTCTT
62201	AAAGTGCACT	TCCAAATTTT	TAGGAAACATG	TCCTTGGGTT	GTACAATATA
62251	ATGACAAAAG	ATCTCCCTCC	TCACCTGCTT	TACCTCCATT	TATTGGTATT
62301	CTCCTAAGTA	ATGAAACAGA	GTTTCAAAAA	CATGTTATTG	TAAATGACT
62351	CTTATTACAG	CCTGCCTTTC	TCAAGTACAT	CTTTTGCTTT	TGGAGTTGTT
62401	CAAATTTTAG	ACAAAATGTT	TCCACTGACA	GGCTAAATAT	TAAGTACATG
62451	GCTGTGTTAT	ATTATTGCCT	AGCATCATGC	CTCAAAGTTT	GTTCCATGGA
62501	CCACCTGTCC	TAGAGTCACG	AAGGATGCTT	GTTGAAAATA	CAGATTCTCT
62551	GGGTCTATGT	GGATTTACTG	AGTTGGAGTT	ATTGTGTGTA	ATGTCTAGGG
62601	ATATGCATTT	TAAACAAGCA	ACTTGGAAAG	TTCTGATGTA	TAAATTTTGA
62651	GGTCCACTGG	AAGGATGCTT	ATTTAATGGA	GATATGGTAG	GCTATGAAGA
62701	ACAGCATTTA	AAATGTCAAT	CCAGTGAATT	AATAAGGGAA	GCTTTTTTCAT
62751	TATTTTATTT	TGTTTTATTT	TGCGATGGAG	TCTTGCTCTA	TTGCCAGTC
62801	TTGAGGGCAG	TGATGGGATC	TTGGCTCACT	GTAACTCTG	CCTCCTAGGT
62851	TCAAGTGATC	CTCCTACTTC	AGCCTCCCCA	GTAGCTGGGA	TTACAGGCAT
62901	GTGCCACCAC	GCCTGGCTAA	TTTTTGTGTT	TTTAGTAGAG	ACGGGGTTTC
62951	ATCATGTTGG	CCAGGCTGGT	CTCGAATCTC	TGACCTCAAG	TGATCTGCCT

FIGURE 3, page 20 of 141

63001 GCCTTGGCCT CCGAAGTGCT GGGATTACGG GCATGAGCCA CTGCACCCAA
63051 TCTGCATTTA CTGAGTCAGA GTTATTGATG ATAATGATAA TGATAGTTGA
63101 TGATAATAGG GATATGCATT TTAACAAGC AACTTGGAAG ATTTTGATGC
63151 ATAATATTTG AGGTCCACTG GAAGAATGCT TATTTAATGG AGATATGGTA
63201 GGGTGTGAAG GAAGAGCATT TTAAGTTGTC AGTCCAGCGA ATTAATAACG
63251 GAAGCTTTTT CATTTTAAAA TAAAAAGCAG GACAGAATAA TTTTGAAGT
63301 TCCTTTTAGC CTTAAACATT GCAGGGGTTT TTTTGTTTTT GTTTTTGTTT
63351 TAAATTCAGG CTTCTGAGAA TGCTCTTCTT TTGTCTTTTA AGGTTGTAAG
63401 TGCTTTGATT GCCAATGTTA ATACAAGGAT TAATTTTTTAA AATCAAATCC
63451 TTTTAGGATT TAAAATTTGA TAATAACAAT CAAAGGTGGG GTTAAGAACA
63501 CTGAATTTGG GTTGTCTTTC ATTTCTTTAA AGCCTCGACA TTTCAAAGGC
63551 AATCTGTCAT TGGCTAACTG GGATGGTGAA AGGAGGAGAT ACTATTAATC
63601 CATCAAATGT TACAGTTTGG GTTACAGATT TTCAAACCT TAGAAGTTAA
63651 CATCAAGTCT TTTATTGCAA CCTTCAAGAG ATAATCTTAG TGAAGGAAAA
63701 CATTTTTTGA TAGCTGTATA GACTTAGGGC AATATTAATT TTGGGTCACT
63751 TAAAGTCAAT ACATTTTTTCA TGAAAGTTAT TTTAGCAATA AAAGTCACTA
63801 TTAAATATCT CTCGAAGGACA AAGTTAAGAA AACAGAATAT ACTTACAGAT
63851 ATTGTAATAA GAATTTCTTA GACCAACGCA TTACATTTCA TCAAAAACAT
63901 TAGCTTTTTA CTTTAAAGAC AGCTTAGAGA AAGAAAGTAA TGCTTTTCAT
63951 ATTGCTGAGT TAAAATCAGA CTA AAAACTG TATTTCTTTG TTGTGTCAAA
64001 TCATAATTTG TTGTGTCTAA ATCTTTGAGT GACTTGTCTA TCATAATTAA
64051 ATCCTTAGAA AAAATCAGAG GTTTTTGTTT ATTTTTTGTG TTTTTTGAGA
64101 TTGGGGTTTC ATTCTGTCAC CAGGCTGGAG TGCAGTGGTG CAATCATAGC
64151 TCACTGCAGC CTCAATCTCC TGGACTCAAA CGCTCTTCCC GCTCCACGCT
64201 CGCAAGCAGC TGAGAATATA GGCATGACAC CAGGCTGGGC TAATTTTAAA
64251 ATTGTTTTTT AGAGATGGGA TCTTGCTATG TTGCCCAGGC TGGTTTCAAG
64301 CTCCTGGCAT TAAGTGATCA TCCTACCTCA GCCACCTGAA TTACTGGGAT
64351 TACAGATGTG AGTGATTGCA TCTGGCTGTG TTTATTTAAAG AACACAGTAA
64401 ATGCAAAACA AATAGTTTTT CTTGAGGATA AACATGTAAG ATGGAAATAG
64451 GAAGAATAAC TTAAGAAGCA CAAGACACAG ATCTTGGAAT AATTTAATCT
64501 TTCAGTGTTC TCTCTTCCTG TTGATTTCAC ATAGCCCTTG CTTAATGCTA
64551 AAAACAGATA TCTTTCTTCT TTTTAAAGTT CTACCCAGAA GGCAATGGGG
64601 AGTTTGGGCTA TTTCTTTTGG ACATTTTCACT TTGAGGCCCTG TTATTGAAGG
64651 CCCTTTTCTG GTTTTTTCCTT CAATAGTCTA AATATATATT TATTTAATTA
64701 CAGGAAATCA GGCCTTAAT ATCAATGCAG GAAACAGACA TAAACTTTTT
64751 ACCCACCTCT GTTCTCTG CACTTGAAG GATTGTAAGC
64801 AGGTGATTGT CAGACCAACA ATAAATGTCA CTCAGAGAGC ATGCATCCAT
64851 ATGGCAAGGT AACCCAGAAA ACATAATTAT GCTCATTCAC AAAAAATAAA
64901 GAAGTTGATA TAAAATGTAT AGAATTTAAT ATTTCTTTAA CACAGTTTAA
64951 AAATGACAAT AGGATGTGAA AAGCAGCATT GCAGTTTGGG GATAAATTCC
65001 TGAAAGGAAT GCTATTTTAA TGCACAAATG TCTCCAAATT TTAGTATTAT
65051 AACTGTAAAA ATAAAAACTT TAAATAAATT AAATTTACCA AAGTTTATTT
65101 GAGCACACAC AAAAAAAATT TCTTGAATTG GGCAAACTTC AGAACTAGAA
65151 GGAGTTCGGA GAGCTCTTTC TGCCCAGCAA CCTGAGCAAT GAGCTTTTAT
65201 AGGATGGACA CAAAAGCAAA CCAGAGAAAT CATTTGATTA GCTATAGCTA
65251 GGCATTTGCC TTATTTGGGC ATGGTGTGAT GATTTGGCTG CCTGTGATTG
65301 GCTGAAATC AGCTATTTCT TCTGTGTATT GGTTTGTFTA CATACTACGT
65351 TAGGTTGAGG TTTGCTGCAC AGGAATGCAA GGTATGGAGG CAGCTTCAGG
65401 CCAAATTTAA GTTAATTTAA CAATTTCTCC CTATTAGTCA GTCTCTCAAA
65451 ATTGGGCATT GATGCCACTC TGTCACCATC GTCATGGACT TTTTGGTCT
65501 TGGTATGAAA TACATAATTC ATGGCATCAG GCTAGTTGAA TGATTCCTTA
65551 TGTTCTCTTT GTGTTTTTGT TGTTTTAACA GTAGTGAGAC CATTTGATGT
65601 ACAACAGATG GCTGTATATG AGCATTTAAG ACACCTGAGA GAATATAGAA
65651 CACCAGGGAG ACTATTGTGA TGGTTATCAG GAGGATAATA CTAAGAGAGT
65701 GAAGTGATTT CTTTAACAGA GGCCACCATG AACC AAAACA ATTATAATAA
65751 AATGAATCAA AAAAATGAGC CAGAAGAGGA ATCTACTTGT TTTAACCAAG
65801 TAACCTGTTT GTTTACTTTT TAAAAGTGG TTTCTACCGT ATCAGACATA
65851 TTTATGAAAG GGCAGCATGA GATGTTAGCC ACTGCATACA TATTCCTATG
65901 TTCATCGAGT AGTCCAAAAC AGTCTAAAAC AATGTTAGCA AGAGAATTTA
65951 TAAAGGATTC TGGGCAACGA TAGCCTTTGC AATAGAGTCA GCTATAGTAG
66001 CTAATATTTG AGACAGATT CTAATAATAA CTCTATATAC ATTTATGCCA
66051 AGCCAAAGAA GAACCATTTCT ACAAAGATG CCCATTTAGA GTGATTTAAG
66101 CCTGCCGGAA AGTTCTCTCT TATTATTTTT GTTTTAAAT ATGGAACGCT

FIGURE 3, page 21 of 141


```

66151 TCATGAATTT CCGTGTCTATC CTTGCACAGA GGCCATTCTA ACCTCCTCTG
66201 TATCATTCCA ATTTTAGTAT ATGTGCTGCC AAAGCAAGCA CAATTTCTCG
66251 TTAATCCATG GCACAAATTA AGAGATACAG AACAATGTTC AGTTTCCAGT
66301 TGCTTATGAA GTGACAGTGG TACTGTTAGA ATCTCTAATC CACATTGGTC
66351 CCTTATTTTC CACTTGAGAC AAGGAGTTGC CCACACATAT GGTGATCAT
66401 TAAATCCTCC ACAGATAAAA ATATATCCTG GAGGGGCACA AGAGACAGTT
66451 CCTTGTGTGA TACTTTGTGT GTTAGAAATC ACCAGTTGGG AAGCACTGGT
66501 AATATTTATC CAAGGGTCCA TTATTGAATC ATTGATGGT AGATTACTTC
66551 TTACCAATAA GAAGGGATTA GGGTTATAAA GTTGTCTACA AACTGTCAAC
66601 TTATCTTTCT TTTGGTTTTT TTAGTTTCTG GCATAATTTA GCTGCAAAAC
66651 CCTCAATATA GGTTTTCTCT ACTATTAGAT TTAAACAAGA GTCTGAATAT
66701 ATGAATCTAA AAACCCAATC ATGTGAAAAG AACCAGATGT GCAATTTTTT
66751 TTTTGAGACA GAGTCTCGCT CTGTCTGTCA GGCTGGAGTG TGGTGGCATG
66801 ATCTCAGCTC AGTGCAATCT CCGCTCCTC AGCTCAAGCA ATTCTCCTGC
66851 CTCTGAGTAG CTAGGATTAC AGGCGTGTGC CACCACGCTT GGCTAATTTT
66901 TGTATTTTTA GTAGAGATGG GGTTCACCA TGTTGGCCAG GTTGTCTCTG
66951 AACTCCTGAC CACCCGCCTC TGCCTTCCAA AGTGCTGGGA TTACAGGCGT
67001 GAGCCACTGC GCTTAGCCCA GATGTGCAAT TTGAACAAAT AGTCACCCTT
67051 GGAATATTAG TGAAATTTGT TACATGGTGA ACTAGAATAT CTCTAAGATC
67101 ATATAGGGAT TCAGGTTTAA CATGACATAG TCAACATTCA GTCTAGTTCC
67151 CTGCAAAGC TATCAATTAT GAAATCTTAA TTATCATT ATCTTGCCAT
67201 ATATAAACAG AAAAGAAAAC AAAGAGGAAA GGGAACAAAG ATTTCATAGT
67251 GACAGAGGAG AACAGTCTTG ACCTGTGATC TTGGGAAAGC TGTCCACATC
67301 TAGGATGCCA TTTGCTTCTG GAGAAAAGCT TCCCTAGTCA GCTTTACCTT
67351 GAGATCTCCA GTGGATTAC TGTCCAAGA GTCTGGAGGG GCTCTCTTGA
67401 GTTGAGATAT AGGGATCCAA GGCTTGAGGC CCTGAAATTT TGCAGTAGTG
67451 TGGGTGGTGG GAAGAACTTG GTATGATCTT TTTCAAGTGG GCTCAAGGGC
67501 AGTCTTTCTC TGGTGTGCT TCCAAAAGAC CCATTCAGTG GGTCTAGAT
67551 CATGAAAGAT CTAGTTGTCA TCAGCTGGTG GGTCACAAAG GGTTCCTTTT
67601 AACTGGTAAA AATATACTTT AGCATAATGC ATTAATAATCT TTCAATATTA
67651 AGTCATGTCA GAACCTATAA AAGTGTGAGA TTCATGAGGT GCTATTATTA
67701 GGGCCATACA CCTCCGGTA ACTATTTTAT AAGGGGTCAA TCTGTGTTTT
67751 CCAAGGGGGG TGGATCTGAC TGCCATCAAT CAGTAATACC TTGAACAAG
67801 GCAATACAGT CAATTCAGTT AGCTTTGCCT AATACCATTG TGTTTGTAA
67851 AACTTATTTA ACTGCTTTAT AACTTGTTCA GTGAAATGAG CGCCTCTACC
67901 ACTGGAAATT TCTCCAGGAG TATTCCATAA AGCAAACACA TTTCATGATA
67951 ACCTTTTAGC TACTGTTATA TCAGCAACCT TCCTGCATGA CGGGAAAGCT
68001 TCTGTACATC CAGAACTAT TCATTGAAGG TAGGAATTGA GTGATGTCCA
68051 TCTGTAAAGTA TTCAAATGAT CCAGCAGGTG CTGGAAATGT ATCATCTGAG
68101 TGTTTTATTG TCTGTCAAA ATTATGGGTT TGACAAACCA GACAGTGGTT
68151 ATAAACCATT TTAGGAATTT TAGAACAGAC AGCCTGCCAG TATTTTTTAA
68201 AATAATTGGG ATTATTTTCT CTCTCCTGTG ATGAGTTAAG GAGTACAGAG
68251 CTTCTAATAA TTAAGCTTTT AAGGACTCAG GAAGGACCAA GCAACTGTCC
68301 AAGCCCTCCA TTAGCCACA CTTAACATTG AATTTACATC CTTTTAAATA
68351 CCAGTTGATT TCTCCAATTC AGGCACACAG CATTGTTTAT GAAATAGTTC
68401 ATCATAGGTA ATTTGACTTG GATCAATCTT ATGGAGCTCA TTCAAATTGT
68451 ATATCTTAAC AATTTAGTA CTGGCTGACT TAGTATGAAA ACCTGCCAAA
68501 GCATTTCTTT AGCAACCAAT TAATTGGTGT TCTGCTTGAT GTGGGGTTAG
68551 TGGTTTTATG AACCAATCAA TTTATTCAAT AGCATTCTAG AAATTCTTAT
68601 CTAATCTAAT TGTGTGAACC TAAGGTTATC AGAAACCTAT GTTGTGAGAG
68651 TTCTTTCCAT GAATCCCCTC AAAGTTGAAA AATTTAGGTT TATAGTTGTT
68701 TTCAATAGCT TTCAGGAAAA TACCAAAGTA AAACAATTAA CTGTCTGTGG
68751 ATGGCAAGAC TTTAAATGAT AATGGTTAAA TGTCTGATGA AAATTAATTA
68801 TAATGCAATT GACAAGAAAA TTTGTTTCC TTTTCTGTAT ATACAGTATT
68851 TTTTAAAAAT TAAAATTACG AGTGATAGTA ATATGTCAAG ACTATCAAGT
68901 TTCTGGGAAT TTCATATAAT TTCTGGAAAA CATATTAATA ACATACTCAT
68951 GCAATATAAC TTAAAGATGG TTCAGCAACA CTTATTATTT GACAATGCTT
69001 CCCATGCAAT TTAACACATC AAATAAGCCT AATTAGTTTA ACATCTCTCT
69051 TTTTTATAAG AAGAGAGGAA AAAATTCCTT TGAGAAATTC CAGAAGTCAG
69101 TTTGGAAACT TCCAAAGTTG GTTTGAGGTC GAAAGGCCTT AATTTAATGC
69151 TTGATTTTGA GAAGTGGTTA AAAAATGTCA AAGGGTTTAA AATAAATAAA
69201 ATAGGATCAG AGGTCACTGG CAACAGTAGT CATTTAAGCA GAGTGATAAT
69251 TAAAATACCT CAAAGAAAGT TACATAATTA TAGAAAAACC TTAGCTTTTT

```

FIGURE 3, page 22 of 141

```

69301 AAATAGAGAG AACTGTTTTC TTGAGTGATC AAAAGACTTA TAAAGACCAC
69351 ACGAAGCACA GGAAATTGTC TTTTAAAAA AATTGACATA TTTTGTAT
69401 AGAGGGTACA TCTGTAGGTT TGTTACATGG GTATATTGCA CCCAGGTAGT
69451 GAACATAGTA CCCAATAGGT AGTTTTTCAA CTCACATCCC CCTTCTCCC
69501 TCCCCTATCT AGTAGTTGGC AGTGTCTGTT GTTCCTCTGT TTATATCCAT
69551 GTGTGCTCAA TGTTTAGCTC CCACTTATAA CATGTGATAT TTGGTTTCT
69601 GTTCCTGTAT TGGTTTGCTT AGGATTATGG CCTCCAGCTT CATCCATGTT
69651 GCTGTAGAGG ACATGATTTC ATTCCGTTTT TATGGCTGTG GAGTATTCCG
69701 TGGTGTATAT GTATCATATT TTCTTTATCC AATCAATGAT TGGTGGGCAC
69751 CTAAGCTGAT TCCATGTCTT TGCTGTTGTG AATAGTGTGG TGATGAACAT
69801 TATGCATGCA TATGCTCTTT TGGTAGAATG ATCTATTTTC CTTTGGGTAT
69851 ATTCACAGTA ATGAGATTGC TGAGTTGAAT AATAGCTCTG TTTTGAGTTC
69901 TTTGAGGAAT CTCTAAACTG CTTTCCACAG TGGCTGAACT AATTTACATT
69951 CCCATCAACA CTGGGTAAGC ATTCACTTTT CTCCACAGCC TTGCCATTAT
70001 CTGTTGTTTT TTGACTTTTT ATTTTAATTT AATTTAATTT AATTTTATTT
70051 TATTATTATT GTTATACTTT AAGTTTTAGG GTACATGTGC ACAATGTGCA
70101 GGTTAGTTAC ATATGTATAC ATGTACCATG CTGGTATGCT GTACCCATTA
70151 ACTCGTCATT TAGCATTAGG TATATCTCCT AATGCTATCC CTCCCCCTC
70201 CCCCCACCCC ACAACGGTCC CCAGAATGTG ATGTTCCCCT TTCTGTGTCC
70251 ATGTGTTCTC ATTTGTTCAAT TCCCACCTAT GAGTGAGAAC ATGCGGTGTT
70301 TGGTGTTTTG TCCTTGCGAT AGTTTACTGA GAAGATGGTT TCCAATTTCA
70351 TCCATGTCCC TACAAAAGGAC ATGAACTCAT CATTTTTTAT GGCTGCATAG
70401 TATTCCCATG GTGTATATGT GCCACATTTT CTTAATCCAG TCTATCATTG
70451 TTGGACATTT GGGTTGGTTC CAAGTCTTTG CTATTGTGAA TAGGGCTGCA
70501 ATAAACATAC GTGTGCATGT GTCTTTATAG CAGCATGATT TATAGTCCTT
70551 TGGGTATATA CCCAGTAATG GGATGGCTGG GTCAAATGCT ATTTCTAGTT
70601 CTAGATCCCT GAGGAATCAC CACACTGACT TCCACAATGG TTGAACTAGT
70651 TTACAGTCCC ACCAACAGTG TAAAAGTGTT CCTATTTCTC CACATCCTCT
70701 CCAGCACCTG TTGTTTCTTG ACTTTTTAAT GATTGCCATT CTAAGTGGTG
70751 TGAGATGGTA TCTCATTTG GTTTTGATT GCATTTCTTT AATGGCCAGT
70801 GATGATGAGC ATTTTTTCAT GTGTCTTTTG GCTGCATAAA TGTCTTCTT
70851 TGAGAAGTGT CTGTTTCATAT CCTTTGCCCA CTTTTTGATG GGGTTGTTTG
70901 TTTTTTTCTT GTAAATCGTG AAGGACCTCT CCAAGGAGAA CTGCAAACCA
70951 CTGCTCAATG AAATAAAAGA GGACACAAAC AAATGGAAGA ACATTCCATG
71001 CTCATGGGTA GGAAGAATCA ATATCGTGAA AATGGCCATA CTGCCCAAGG
71051 TAATTTATAG ATTTCAATGCC ATCCCCATCA AGCTACCAAT GACTTTCTTC
71101 ACAGAATTGG AAAAAACTAC TTTAAAGTTC ATATGGAACC AAAAAAGAGC
71151 CCGCATCGCC AAGTCAATCC TAAGCCAAAA GAACAAAGCT GGAGGCATCA
71201 CGCTACCTGA CTTCAAACCTA TACTACAAGG CTACAGTAAC CAAAACAGCA
71251 TGGTACTGGT ACCAAAACAG ATATAGACCA ATGGAACAGA ACAGAGCCCT
71301 CAGAAATAAT ACCACACATC TACAACCATC TGATTTTTGA CAAACCTGAC
71351 TAAAACAAGA AATGGGGAAA GGATTCCCTA TTTAATGAAT GGTGTGGGA
71401 AAAGTGGCTA GCCATATGTA GAAAGCTGAA ACTGGATCCC TTCCTTACAC
71451 CTTATACAAA AATTAATTCA AGGTGGATTT AAGACTTAAA CGTTAGACCT
71501 AAAACCATAA AAACCTAGA AGAAAACCTA GGCATTACAA TTCAGGACAT
71551 AGGCATGGGC AAGGACTTCA TGTCTAAAAC ACCAAAAGCA ATGGCAGCAA
71601 AAGCCAAAAT TGACAAATGC TATCTAATTG AACTAAAGAG TTTCTGCACA
71651 GCAAAAGAAA CTGCCATCAA AGTGAACAGG CAACCTACAA AATTGGAGAA
71701 AATTTTCACA ACCTACTCAT CTGTTTTTTG ACTTTTTAAA AATGGCCATT
71751 CTGACTGGTA TGAGATGGTA ACTCATTATG GTTTTGATT GCATTTCTCT
71801 GATGATTAGT GATGATGAGC ATTTTTTCAT ATGTTTCTTG GCCACTTGTA
71851 TATCTTCTTT TGAGGAGTGC CTGTTTCATG CTTTGCCCA CTTTTTTTTT
71901 TTTTTTTTAG ATGGAGTCTC ACTCTGTTGC CCAGGCTGGA GTGTAGTGGC
71951 GCAATCTCCG CTCACTGAAA CCTCTGCCTC CTGGGTTCAA GCGATTTTCC
72001 TGCTCAGGCC TCCTGAGTAG CTGGGATTAC AGGTGCGCAC CACCACACC
72051 AGCTAATTTT TGTATTTTTC ATAGAGATGA GGTTCACCA TGTTGGTCAG
72101 GCTGATCTCT AACTCCTGAC CTTTGCCTAC TTTTAAATGT TTTTTTTTTT
72151 CTTCTTTGTT GATTTAACTT CTTTATAGAT TCTGGATATT AAACGTTTGT
72201 TGGATGCATC ATTAGTCAAT ATTTTATTCC ATTCTGTACA TCATTTGTTT
72251 ACTCTGTTGA TAGTTTCTTT GGCTGTGCAG ATGCTCTTTC ATTTAATTAG
72301 GTCCCACCTG TTTTGTTTTA GTTGCAACTG CTTTGGAGAA CTTAGCCAGA
72351 AATTCCTTTC CAAAGCCAAT GTCAAGAAG GCATTTCTTA GGTTCCTTCT
72401 AGAATTTTTTA TAGTTTGATG ATTTACATTA AAATCTTTGA TCAATCTTGA

```

FIGURE 3, page 23 of 141

72451 GTTAATTTTT GTATGTGGTA AAAGGTAAGG GTCCAGTTTC AGTCTTCTGC
72501 ATATGGCCAG CCAGTTATCT CAGGACCATT TATTGAAAAG AGATCCTTTC
72551 TCCATTCCCTT GTTTTTGTG GCCTAGTCAG AGATCAGACG GTTGTGTGTG
72601 GCTTTATTTT TGAGTTTTCT ATTCTGTAGC TACTGGTTTA TGGGTCTGTT
72651 CTTGTACTAG TATCATGCTT TTTGTTTACG ATAGCCTTAT AATACAGTTT
72701 GAAGTCAGGT AGTGTGATGC CTCCAGCTTT GTTCTTTTCC TTAGGATTGC
72751 TTTGGCTATT CAGGCTCTTT TTTGGTTCCA TATGAATGTT AGAGTAGTTT
72801 TTTCTAATTC TGTGAAGAAT GATGCTGGTA GTTTGATAGG AATAGTGTG
72851 AATCTGTAGA TTGCTTAGGG CAGTATGGCT ATTTTAACAG TATTGATTCT
72901 TCCAATCCAT AAGTATGGAA TGTTTTTTCC ATTTATTAGT GTCATCACTG
72951 ATTTCTTTCA GCAATGTTT ATATTTCTCC TTGTAGAGAT CTTTCACCTC
73001 TATGGTTAGC TGTATTCCTG GGCATTTTCAT TTTCTTTGTG GCTATTTTAA
73051 ATGGGATTGT GTTCTTGATT TGACTCTCAG CCTGGACATT ATTGGCTTAT
73101 AGAAATGCTA TTGATTTTGG TACATTGATT TTGTATCCTG AAACCTTACT
73151 AAAATTGTTT ATCACTTCTA ATAGTCTTTT GGTGGAGTCT TTAGGGTGTT
73201 TTAGGAATAG AATCATACTG TCAGCAAAGA GAGATAGCTG ACTTCGTTTT
73251 GGATGCCCTT TATTTCTTTC TCTTGCCCAG TTGCTCTGGC TAGGACTTCC
73301 AGTAGTATGT TGAATGGGAG TGGTAAGAGT GGGCACCTC ATCTTGTTCC
73351 AGTTCTCAAA GAGAATGGTT CCAGTTTTTG CCATTCACTA TGATGTTGGC
73401 TGAGAATTCT TCATAGATGG CTCTTATTAT TTTGAGGTAT GTTCCTTTAA
73451 TGCCTGGTCT GTTGAGGGTT TTTATCATGG ATGTTGGATT TTCTTAAAAG
73501 CTTTTTCTGC ATTTATTAAG ATGATCATAT GGTTTTCGCT TTTAATTTTG
73551 TTTATGTGGT GGGTGAATCA CATTATTATG TTTGTGTATG TTAAGCCAAC
73601 CTTGCATCCC AAAAAAAGG CCTACTTGGG CCAGGCATGA TGGCTCATGC
73651 CTGTAATCCC AGCACTTTGG GAGGCTGAGG TGGGCAGATC ACGAGGTCAG
73701 GAGTTGCAGC TAGTCTGGCC AACATGGTGA AATCCCGTCT CTAATAAAAA
73751 TATAAAAAAT TAGCTGGTGG CTAATCAGGA GGCTGAGGCA GGATAATCGT
73801 GTGAACCTGG GAGGCCAAGG TTGCAATGAG CTGAGATCAT GCCATTGCAC
73851 TCCAGCACAA GTGACACTGC AAGACTCTAT CTCTAAATAA ATAAATTAAT
73901 TAAGCCTACT TGATTTTGGC ATATTAACTT TTTGCTGTGC TACTGGATTG
73951 AGTTTGCTAT GTTTTATTGA GGATTTTTCG ATCAATGTTC ATCATGGATA
74001 TTGGCCTGAA GTTCTCCTTT TTCGTTGCAT CTTTGCCAGA TTTTGGTATT
74051 AGGCAGTTGC TGGCTTCATA GAGTGAATTA GGGAGGAGCC CCTCCTCCTT
74101 GATTTTTTGG AATAGTTTGA GTAGGATTGG TACTAGTTCT TTTTGTACAA
74151 CTGGTAGAAT TCAGCTGTGA ATCCATCTGG TGCAGGACTT TTTTGGTTG
74201 GTAGTTTTTA TTATTATTAT TATTGCAGAG CTCAGTATTG GTCTATTCAG
74251 AGTTTTTAATC TTCTCCTGAT TCAGTCTTGG GAGATTGTGT GTTTCCAGGA
74301 ATTTATGTGT TTCTCTAGA TTTTCTATTT TGTGTGTGTA AGTTGGTCGT
74351 AGTATTCTCT GAGGATCTTT TGTATTTCTA TGGGATTGGT TGTAATATCA
74401 TCTTTGTCTAT TTCTGATTAT GCTTATTGG ATCTCTTTT TGTTGTTAAT
74451 CTAGCTAGAG GTCTACCAAT CTTGTTTATT TTTTATAAGA ACCAACTCTT
74501 GGTGTCACGT ACCTTTGTGA TAGATTTTTG CATCTGAGTT TCATTCACTT
74551 CTTCTCTAAT TTCACTTATT GTTTTTCTTC TGCTAGCTTT AGGGTTGGTT
74601 TGTTCTTTTT TCCTAGTTCC TTTACGTCCA AAGTTAAATA GTTAATTTGA
74651 GCTCTTTCTA ACTTCTTGAT GAAGGTATTT AGTACTATAA ACTTTCCTCT
74701 TAACATGTTG AGCTACACCC TGGAGATTTT GGTATGTTGT GTCTCTATTT
74751 TCATTAATTT CAAAGAATTG TTTGATTTCT GCCTTAATTT TGTGTGTAAC
74801 CCAGAAGTTA TTCAGGAGCA AGTTGTTTAA TTTCCATGTA ACTGTGTAGT
74851 TTTGAGAGGT CTTCTTGATA TTGATTTATA TTTTATGCA CTGTGGTCTG
74901 AGAGTATGCT TGGTATGATT TCAAGTTTTT GAATTTATTG AGACTTGCTT
74951 TATGACCAAG CATGAGTTCTG ATCTTAGAAT ATGTTTATGT GGAGAAGAGA
75001 AGCATATATA TTCTGTGGTT GTTGGATGGA GTGTTCTATA AATGTTTATT
75051 ATGTCCAGTG GGTGAAGTGT TAAGTCCACA GTTTCTTTGT TAGTTTCTG
75101 CCTTGATGGT ATGTCTAATG CTGTCACTGG GGTACTGAAG CCTCACTGTA
75151 TTACTATGTG TTTGTCTAAG TCTTTTCATA GGCCAAGAAG AACTTGTTTT
75201 ATGAATCTGG ATACTATAGT ACTAGGTGCA TATATGTTTG GTATAGTTAA
75251 GCCTTCTTGT TCAATTAAC CTTTATCATT ATGTAATGTC CTTCTGTGTT
75301 CTCCTTAATT TTTGTTGGTT TAAAATCTGG GTTATTTTAT ATGGGAATAG
75351 TGACTCCTGC TCTTTTTTGT TTTTTTGTG GGATAGTGAA TCTTTCTCCA
75401 TCCCTTTACT TTGAGCCCGT GTGTACCATT ACATGTTAGA TGGGTGTTAG
75451 CTTGCCACTC TTTTGTCTTT ATATGGGATG TTTAGCTCAT TTACATTCAG
75501 GGTATTATTT AATATGTGAG ATATTGATCC TGTATCATG TTGTTAGCCG
75551 GTTGTTATGT AGAGTTAAGA TTGCTTTGCA GTGCCTGTGG GCTATGTGCC

FIGURE 3, page 24 of 141

```

75601 TATGTGTGTT TTTGTGGTAG CAGGTGCCAT TCTTTCAATT CCACATTTAG
75651 CACTCCCTTA AGGACCACTC GTGAGGCTGG TCTAGTTAAA ATGAATTCCC
75701 TCAGCATCTG CTTTCTCTGAG AAGGGTTTTA TTTCTCCTTC ACTTATGAAT
75751 CTTTGTTTGA TGAGATATGA AATTCTTGGT TGAAATTTCT TTTATTTAAG
75801 AGTGCTGAAA ATAGTACCCC AATCTCTTCT GGCTTGTAAG GTTCCGCTG
75851 AGAGGTTTGC TGCTAGCCTG ATGGGTTTCC CTCTGTGCAT GAATGACTT
75901 TTCTCTCTTC CTTTAAGATT TTTTCTTTTA CCTTGACCTT GGTGAATCTG
75951 ATGACTATGT GCCTTGGGGA TGGTTGACTT ATATGGTGTC TAACCAAGGT
76001 TCTCTGTATT TATTCGTTTT GCATGTCATC CTCTTTAGCA ACATTAGGGA
76051 AATTTTCATG GACTATATCC TCAAATATAT TATCTGAGTT GTTTATTCTC
76101 TCTCTCTCAG GAATACCATT GAGTCATAGA TTTGGTCTCT TTATATAATC
76151 CTATATTTAT CAGAAGTTTT ATTCATTTTT AAAAATTATT TTTCTTTATT
76201 TTTGTCCAAC TGAGTTGATT CGAAGAACTG GTCTTTGAGC TCTGAGATTG
76251 TTTTCTCAGC TTTGATCCTT CTGTTAATAC TTTTGATTAT ATTATGAAAT
76301 TCTTGTAGTC AATTTTTCAG CTCTAGAAGC TCAATTTGGT TCTTTTTTAA
76351 ATGGCTATTT CATCTTTCAG CTCTTAGATC ATTTTACTAA TTCCTTGGA
76401 TCCTTGGGTT GGGTTTCAAC TCTCTCCTGA ATCTCCATGA GATTCCCTGT
76451 CATCCAGAGT CCACATTCTA TGCTGTCTAT TTCAGTCACT TTTGATTGGT
76501 TAAAAACCAT TGCTGGGAG CTAGTGGACT TGTTTGGAGG TAAGGGTACA
76551 CTCTGGCTTT TTGCATTGCC AGAACTCTTG AGTTGGTTCT TTCTCATCTG
76601 AGAAGGTTGG CGTTCCTTTA ATGTGGGTGT AAATTGAGTA TAGTTAGTTG
76651 GCTTCATTTT TGGATGTTTT CAGAGGGCCA ATGCTCTATG CAGCTTCTTT
76701 ATTTGTGGCT GAATCTTAC CTTTGGTCTT ATAGGGGGTT ATATTAGCAA
76751 AGTATTTTGT TTGTTGTAGT TTGGGCTGCA ATCCAGTAGA TGAAGCTTAA
76801 GCGTATTTGC TGGTAGAGGC TCTTACTCTG CTGCATGGCT CCTTTGTATT
76851 TCCTGCCACT TGCAAGCTTG CTCTGTGGTG CAGTGGCAAG AGAGGTGACC
76901 CCTTCACTGC ATTTACTCCT GGGCCTTGGG GGAACCTCTT CCAATCACTG
76951 GCACTGTACC TGCATTTCTT TTGTTAGATG TTTGGGCTGC AGGGTTCCTT
77001 CAGTCAGAGG CTGAAGTAGG GAGATAGACC ATACCTTTTC AGTCTGGCTC
77051 TGTGGAGAAA GGCATGCCTA TTCCTGCTGC GGCCCATGAA CCCACGTGAC
77101 TCAACCCTCT TAGTGCTCTG AGAATGTGGG CTCCATTCCC ACTCAAGTGC
77151 CTTAGTACTC CTAGGCTATG CACTGCAGCC CTGGGGAGAG ATCAGGGTTT
77201 TTGTTCCCTC CCCACCTTGG GGGCAGCAGA GGTGGGGCTG CAGTGGCAGC
77251 AATGGCATAC AGCCTGCCAG TTACCTCAGG GGGTGCCACC CCAAAGAAAT
77301 GCATAGCTAT GGCTAATTTG AGTGATCAGC TAGGGATGGG GCAGCTGTGC
77351 TGTGGGCCCA AGCTTGAAG TAGGTGGGT GGGGGCTCTG CCTAGGGAAG
77401 ACAAAGAAAG ATAGTTTGGC CTCTTCTCCA TAGGATGGCT GTGGTGTGCT
77451 ATAGGCCTGC AACACAATC AGGCTGTTTG TTCCCTTTCT AGCCTGGGTG
77501 TTGGGGGTGA TGGGTGGGTA CTATGGTGGT GGCAGTGACA GAGGGCCTGT
77551 CAGTTGTCTC TGGAAGCTCC ACCCCAGAGA AATGCAGAAC CACCACTAAC
77601 TGATCAGGTG GGAGTGGCAC AGCTGCTCTG GGGGCCTAAG CTGGAAGGCC
77651 GTGCCCAATC AGGAGCAGCA AGTTCAGAGA GCTGCATGGA AAACAGTCTG
77701 GCTGCCCTAC TGTATGGCAG CTGTGGCATT CTGGAGGCCA ATGACAGTTC
77751 TTAGATTCTT TACTCTCTCC CCAGCCTGAG GACAGCAGGG GCAGGGGCTG
77801 TAGCAGTGGC AATTGCAGCA GGCTTGTCTG TTGCCTCTGG GAGCTCCATC
77851 CCAGAGGAAA GAAGAGCAAT GACCAGCTGG AATGTTCAGA TTGGGGTGGG
77901 GTGGCTGTGA TTGGACCTTG CCTGATGAGG TACAGTCTGC AGTTCATCCT
77951 CTCCTCAGCA CCGTGCGTGT GGTACCTATC CTAGAGGTGC ACGAGAGAGC
78001 CTGAGCTCCT TTGTTGTAG GGCTATGGCA GCTGGCACCA ACGTGCTCAG
78051 AGATCCAAGG CTCATGGAGC TCAATGTGGG CTTCAGTGGT AGCTCTGCAC
78101 AGACTCCACA AGCTCTCTGT GTCGATCTGG AAGCCCAGGG GAGCCGGGGG
78151 CCTCTCCTGT GCCCAAGATT ACAAAGGTCA TGCAGACATG TGGTCCTTGG
78201 GGA CTCTCAC TCATCTCTC ATCCTTTCTT TGCAGCTGGG AGCCTCCTCT
78251 GGCTCTGCAC CAATCTGGG TGGGCAGCTG TCCTACCTTG CTCTTCTTTG
78301 CTTTCTGTGG TCGCTGTTG CTCTTTGAT GAATCAAAAC ATGGCCTCCT
78351 GTATGATCCA CTTGAAGATC TAGTGTTTAC TTGCAGCTCT GCCTCTTCTC
78401 CATGAGAGCA GCATGACTA ACTGCTTCTA GTCAGTCATC TTGGCAAGTC
78451 AGCCATCATG GCATTTCTTT AACTTTCTTA ATTATCTTGA CAAAATGCAG
78501 AATATTTCCCT TAGCCAATTA CCTAAAAGGT AAAAACAAAA CAAACAAAAA
78551 AAAAACCTTT TCACAATTTT CTGTTAAAAG TAGACCAGTA CCTCAAGAAA
78601 AAGTTGTTTT AACATAAAGG ATGAAATTCT AATTTCCCTT CATAGTGTTC
78651 TTGATATTAA TGCTTAATTT TTAGAAAAAT TTATAAATAG CACGTCTAAT
78701 CTTAGCTAGC TTAATCACGT ATAAAATTTT TTTCCCAAGG TTTCCCTTCT

```

FIGURE 3, page 25 of 141

78751	ACAGACTTTT	TGTATTAGTC	CATTCTCAAT	GAAGAAATAG	CCAAGACTGG
78801	GTAATTTATA	AAGGAAAGAG	GTTTAATTGA	CTCACAGTTC	CACATGCCTG
78851	GGGAAGCCCC	AGGAAGCTTA	TAATCATGTT	GGAAGGCCAA	GGAGAAGCAG
78901	GCACTTCTTC	ACAGGGCAGC	AGGATGGAGT	GAGTGC AAGC	AGGGGAAATG
78951	CTAGATGCTT	ATAAAACCAT	CAGATCTTCT	GAGACTCACT	CACTGTCATG
79001	AGAACGACAT	GGGGGAAACC	ACCCCCATGA	TTTGATTATC	TCCACCTGGT
79051	CCCGCCCTTG	ACGATGTGGAG	ATTATGGGGA	TTACAATTCA	AGATGAGATT
79101	TTGGGTGGGG	ACACAGCTAA	ACCATATTAC	TTTCTAATAT	CCAGTCAGTT
79151	TTTTTCCCCA	AATAGTTCTT	TCTCATTTTG	GATCAATCAT	TCTGCTCTAG
79201	AACAAAATT	ATTCTCTTTT	TGTTTTAACA	GAACAATACA	CATCCTCATA
79251	ACTTATGCTT	TTCCTTACCA	AAAGCACATC	TTACCTATAT	TGTATACTTG
79301	CATATAAAGT	TGTTTTCCCT	ATTATTCTTA	GTAATTTTAG	TTACATATTT
79351	TAATTAGAAT	TCTTAGCCCT	TTATGACCTT	AATTTCTAGT	GAACACTAGG
79401	AAGCAAGCAA	GTGTGAATAT	CATGCCAGCA	GTCCTATAGT	TGGAAAACCT
79451	GTGAATTATA	ATTCTAGGAG	CATATACTTT	TTTATAATAC	ATTTTTTTTCA
79501	ATGTGGGACA	GAACATTTAT	TAACAGTCCC	AACTGTCTTT	AGTCTCTCTG
79551	TAGTAAGAAA	CTGTAGAGGA	AACAAATTTT	TATTTCTATC	CTGTTAGGGC
79601	TTTTTTTTTT	TTTTCCCATC	CTTCGTAAGA	ATGTTAAAG	TTTCTGGTAT
79651	AGAAAGGACA	TTTTTCACAT	GGGAATTCTA	TCTTACCTCT	ATTTGACTCT
79701	TGCTTTTAAC	AATTATGCTT	GAAATGCTCA	TAAAGATGAG	ACATTAAATA
79751	GCTAGCCATC	ACCTTAAGTT	ATTTTTCTTG	CTGACAAGCT	ATGTCACATA
79801	GAGATAACAT	GAACCTATTT	TACTAAATAA	ACCTAGGGGA	GAAGAGTTGT
79851	GCATCTGTAT	TATACTAAAT	GCCGACAAC	CTGAAGGTAT	GCCTGCATTA
79901	ATCAAGCCAA	TATACTTTTA	TTAGCTACTA	TTTACCGAAG	ATTATCCAAG
79951	ATTATGTCAA	CTTGAAAAAT	ATTTTAGGTT	TGTTTTCTAAG	GGTTTAAAGGA
80001	ATACCTATTT	TATATAAGCA	CTTATTTTTT	TTTTAAACCA	TTTAAATAGTT
80051	CTCTTTTACA	ACTTAATTTT	GGCAATACCA	TAAAGAAAAA	GAAATATGTT
80101	ACACATTCAT	AACATACATA	CTGACATATA	TAAATATAAA	CATAAAAAACA
80151	GATCTTGTAG	TATTCATTTA	AAAATTTTAG	CCAGGTGCCA	AGTACAATAA
80201	CACAAAGCTC	ACTAATCTGG	AAGTGAATTT	TTTTCTGGCC	CATGGAACAA
80251	GATTACCCAC	CCAGATGGCT	AAAGCTTTTG	ACTGATATTT	TAGAGAAAAGA
80301	CTTAAGATTT	TTTCCATTGG	CCTTCTCTAA	GGAATCTTTT	AAAGAGGAAA
80351	TCTTTGATTC	ATTTTCATATC	TTAGATATTT	AATACTTCTG	TGTATCCATT
80401	AAAGAGTGTG	TCCCATTTGCT	TTTGTGGTAT	GTTGGATCCT	TTCTTCTCTA
80451	ATGTGCCTCA	CAAGTGACCA	ATTTTATCTG	GGTTAAAACT	TCCTGTGGC
80501	CACGTGAATT	CTAGCTTGTC	CTTAGTAAGG	TTAACACATT	TTAAAAAAAT
80551	GCACAGGTTT	TGGGACCATA	ATTTTGTAGC	ATGGAGAAAA	TTGTGCTTAT
80601	TTTTGGTGTT	TTTAAAGCGA	TACATTGGGT	TGACATACGT	CGTGACCATG
80651	TACCCATAAA	CTTAAAGTAT	AATAATAATA	AAATAAAAAA	AAAAAGAGCT
80701	AGCAGGTAGC	TTCACTGATA	TTTCTTTAAG	GCAATTTTTT	CTTTTCCTTT
80751	TTCTTTATCA	TTGTCTTCAT	CCTCTTCTCT	CTCCTTTTCA	TCCTCCTCTG
80801	AAGTGATTCA	GGAAGAAGAT	GGCAACATGT	AGGC AATAGT	CTTTCTGCCA
80851	CTGGAGATGT	TTTATCTGTG	TCAGAGAAAC	TAAATGAGAT	ATACCAGAAAT
80901	CCTCGCATAC	TCAAGTCCTG	CAGTTGGCCC	TGCAGAACCT	TCATATATAC
80951	AAAAGCCCTT	CATATATGCA	GATTTCCATT	CCTGC AAAA	TTGATATTTCC
81001	AATATGTGTT	TGGTTGAAAA	ATATCAGTTT	AGAAGCTGAT	ATTATAAGCT
81051	TGTAAACTGA	TATATTAAGC	AGACCTACGC	AGTTCAAACC	CATGTTATTC
81101	AAGGGTCAAC	TGTATGTTTA	CAGGTCACTT	TTTCTCTGAA	GGACTTTTCT
81151	GTCGTCTACA	CAGGATGTTA	TAATGATCTA	TTGTCAGAAA	TGTTCTTTGCT
81201	AACTTACAGA	AACATGAGAG	TACAGCTTGT	ATGGCTCAAC	GAATTTCTGA
81251	TAAACTCAAG	GAGTAAAAAG	AGAGAAGAAA	TAAAGGCAGG	TTGAAGAAT
81301	GAGAAAGAAA	TGATAGTCTT	TTAGACAAGG	AGTTAAGTAT	TCAATTCGCC
81351	ATATTTTTGA	ATTCCACCAA	GCTTTGGAAC	ACTCTCCTTG	GCCCAGAAAA
81401	ACTATCAGGA	AACCGTACTT	GAGCTAGGCT	GCTAGTGAAT	GTTTGCTATA
81451	CTTTTGATTT	GTTACGGCCC	TGTGTAGGAG	AGAAAATGCT	AAGCAAAATAT
81501	TTGCACATTG	CACGTGAAGG	AAATAAAAAA	TGCATTAGAA	GTGAATCAGT
81551	TGACCTCATA	TTGTTTCATT	AGAAGTAATT	TC'TTTGGAT	TGTCCTATTG
81601	CCTATAAATG	TTCTTCCCTT	GCATCTTAAC	AACAACCTCTG	TCATGAGTAG
81651	TCTATGACTA	GCTTATTTTT	TCCACTTTTG	CTCCCATGA	ATATGATAAG
81701	GACCTCTCCC	ACTCTTTATG	GGGCCCTCTGT	TTTGCATCCT	GCAAAGACTA
81751	AACACAGTTA	ACATTGAATC	CATCC'TTCTG	TTTAGAGGAA	CATTTCTCAA
81801	ATTATCTCTA	AGTTTTCCGT	GTTTTACATG	AAATGAGATC	AGGCTCTAAG
81851	GTTCTCTAAG	AAAATTTAGC	ATTTGACATT	TTTATTTTTTA	TAGCAATTTG

81901	AATACATCAG	TACAACCATA	TTCAGAAAGG	GCATTATGTC	AGACACTGCC
81951	AGGCTATTTT	AGATGTTTGT	CATTTTTTGAT	CATAGTTAGT	TTTTGGCCTT
82001	AATAATAAGT	ATTATTATTT	TACTTATTGC	CAGTGAATGA	TAGGATAGAG
82051	CTTAACATAA	TGCTTAAACG	ATGTGCTTGG	ATCCCCACAT	AGATCCACAG
82101	TTATTATATT	CCTTAGGGTT	TTGCTATAGC	TACGTAGAGG	AAAGGAGAAT
82151	TCAGTCATCC	CAATGCGCAT	GGTACCCTGG	GCATGCTGAA	CTCAAAAAGAA
82201	GCTATACTAC	AGCAGCTATA	TGCACAATAT	AAGTGCCAAT	TTAGTTTCAC
82251	CAAAAATCAT	CACCTTATAT	TAAATTCATA	TCACTGATTT	GAATTTTATT
82301	GGCCGACCTT	TTTAAGTTTT	ATATGTTAAG	ATTCTATAAT	TATATACAAC
82351	TCTAAGTGTA	AGAAAAGTTA	TTGCTAGTTT	TATGTGGGTG	CATATATAGG
82401	TAAATAATAA	AAAAATAATT	TAGATTGAAG	GTTTGTGTGA	TAACCTTTCT
82451	CCTTATAAGG	GTTTTTTCCT	GGAGTGATAT	CATTAAAGCA	TTTAAAACAG
82501	ATTTTATGAA	GTAACACTG	ATACTAGAGG	AAAGAGCTAA	GCTCCATTCT
82551	AATTTGTGCA	GAGTGACTGG	GTATTCAGGG	AGAATAAGGG	AGTAGGGAAG
82601	AGGAACAGCA	GGGCCTGAG	CAGAGTCAAG	GAAGTAAAA	ATTACAAAAA
82651	TCAGGAAGTG	GAGGTTGGTC	CCTGTAAACT	CATGTGGGTT	TGTTATCTGG
82701	TGCTCATCAA	AGTTAGACTC	CTAACCTTCC	TTAGAGATTG	GGAGACAAGA
82751	GCCCTATCTT	CAGGCATTGG	CTGGAAGAAA	CTGTC AATTG	TTCTGTCTAC
82801	CTTGAGTTTT	CTCAGGTAGG	AACTTTAAGG	GGTAGGAGGG	TAGGACCATC
82851	CTAGGGTTGT	GGCCTTGGGC	TTTTAGAAAC	TATTAATAGA	TTCTGTGTTG
82901	TTAAAGTCTT	TATAGGTTAA	TGTTGAGGCC	GAGCTGAGAA	GAGTGCTCAA
82951	AGGAACCTGG	ATAGACTTTG	ATTAAAGAGA	GAATCTTTGT	CAGTGATAAT
83001	TACAGAATGG	CACCTTCTTA	TAAACAGTGA	CTGCTATGTA	TTAACTGTTG
83051	TAATAAGAAC	TTGATTTTAA	CATATTAGCT	GAAAAAATAT	GAAAGATTAT
83101	GCTCTTCATT	TCAGGGCCGA	GATCTGGACG	ATAAAATTCA	GGAATATAAA
83151	CAAGCTGGAA	AAATCTTTCC	AGAAAATCAA	ATAATAGAAT	GGTTTATCCA
83201	GCTGCTGCTG	GGAGTTGACT	ACATGCATGA	GAGGTATGTT	CATTGCTTAC
83251	TGGGGGAGCA	TGATATATTT	TTAACAGTCA	TGTTTGAAGT	TGAAAAGTGA
83301	ATTTTTTTTT	TATAATTGAA	AGAAAACAAG	TTCAAAAGGT	ATATGGCTAA
83351	AATTAACAT	CTATAATATG	TTTTTCCTTG	AGAAAAGTGT	TGAATGATTA
83401	TATCTAGAGG	ATTTACTTGC	ATAGCTTTTT	GTTGCTGTTT	TGAAACTCAA
83451	GTTGGCCTTG	AATATAAGAC	AGAAATTTGT	ATTAAACACA	TTTCATTATG
83501	TCTGATCATG	TCCTGTGAAT	TACAGGAAGT	TCTCAGAAAC	CTTGGGCATC
83551	CTATGAATTT	ATTGTATCTT	ACAGCAGGCT	TGAGTTGTAA	ATACCTTAGT
83601	ATGCCACAAA	TGAATTGTGT	GGTCGCCTTG	GAATGTGTCA	GTGCACACTT
83651	AGCTAGGTTT	ACATCCCAAA	AGAGCTCAGT	AATTGAGACA	GAATGTATTC
83701	TTTCACCTCA	GAGGGATAAG	TATTCAGATA	GAAAGTCAGT	TTTGATATGA
83751	AGTATCTGAT	AATGAAGGTC	AATTATTTTG	ATTATCTGTG	ATTTACATTT
83801	ACAATCTCTG	CCTCAAAAAT	GTATTTTAAA	ACTTTTAATG	AATTTTATA
83851	GGTCAAAAGT	AAGAAGTTTT	AGAAGTTAAA	TATTTTAGAG	ACCCATAAAA
83901	TGATATGAAC	ACGTTTGAAG	AGATGAACAT	ACATAGACAA	AAAAGAAGTG
83951	GATATTCTGA	GGTGTCTGTG	GTCGCTTTCA	CCTTGGAAGT	GGGGCGTTAA
84001	CACATGGTAC	CATTCTTCTT	GAACGAAAGG	GGGTAAATTA	TAAAGCACAC
84051	CAAGGTCTAA	CTATCCGTGG	ATGTCAGGTT	GCTTAAATGT	GTCATCTGTA
84101	CTTTCTGACA	GCATAAAAAG	TAATCGGATT	ATTCTGTAA	TCGCCATGTA
84151	TCTTCTAAAA	CACATGCTTG	TTGATACAGA	TAGCTACTGA	TTTATTGACA
84201	CCTCATAACA	ATCTGTTGGA	TGATGTCAAA	CTATCTTTAG	AAATCTTTTA
84251	TTAAAAGATT	ATTTGACTTA	AATGAATCAA	ATAATCTTTT	AATAAGCTAC
84301	CCAAAGCTAC	TGACTGTAAA	ACTTCTGTGT	ACATACATTT	ATATTGGTAT
84351	TTCTTTTATT	TTCTTATTTT	TTAGCATATT	GTTAGGTTAT	ATGCAAGAAA
84401	AACAACATAA	AAACAACACA	TATTAAGATG	CTAACTATGG	TATTCATATG
84451	ACAAAATACA	AAACTGGAAT	TTGGTTGATT	TAAGAACCCA	AATATTTTTG
84501	ATACCTTTAA	GACTGCTTAG	TAATAGTTAA	AATAAATGAG	TTTAAAATAA
84551	CCCTTTGAAC	AGAGGCTTAT	AATTTTAAAT	CCTTTAATAT	TCAAAGAAAG
84601	TCATTAAATG	AGACTAAATA	TTTGATATTT	TGTGAATCTG	TGGATCTGAA
84651	ATACAATCCT	TTGTGATTCA	GGTAACAAAT	GATGGTGTCT	CTTAGTCATT
84701	ATGTTATTAT	AACCAATTAC	TGTAAAATTT	TTATGTACAG	AGAAATTACA
84751	ATTTTATGTT	TCGGTTCATT	CATTCCCTCA	TTAGATAGTG	ATAAATTAAA
84801	AATAAGTCTC	AACCTCAAAG	AGCTGTTAGT	AAGCTAGCCG	ACATAAAACA
84851	TGTACCCCTA	TAACTATAAG	CCATGTACCA	TGGTGGATGT	GCACAATTCA
84901	TTGTCTCCAC	TATTCACCAG	ATTCATGACC	TTGAGCAAGC	TGGTCATGAG
84951	AGCAAGCTCT	CCTCTCTGAA	CCTGTTTCCT	CATCTATTAG	ATTGGTGCAA
85001	AAGTAATTGT	GGTTTTTGCC	ATTATTTTTTA	ATGACAAAAG	CCACAATTAT

FIGURE 3, page 27 of 141

85051 TTTTGCACCT ACCTAATATA AAGTAAGGAT AATAATAGGA CTCTCCTTGC
85101 TTACATTAAA GGGTAGAAAA TATGCATTCA GATATTAGAC AGTTTAAAAG
85151 TTTGCAAAAT GTTAAGCTCT ATGTAATGTT CTTGTTATAA TTTAATATAG
85201 AAATGAGAGC ACAGACATCA AAAGGGGTTT TAAAAACGAT GACAGTAGCA
85251 AGTGTGAGTA AACATATGGA GTACCTGGAA TTATTTTATA TTGTTAATAG
85301 GGTATACATT GATATAAACA CTTTTGAGAA ATGTTTGCAA AACTTTCTAA
85351 GCCAAACATA CAAATAGCTA TGACCCAGTA ATTCTATTCC TAAGGGTAGA
85401 AATGAGTGCT GATGTCCAAC AAAAGGTATG CAGAAATGTC CATAGAAGCC
85451 TTTTTTGTAA TAGTGA AAC ATTA AAAAAT ATT CATCTAC AGTGGAATGG
85501 TTAACCTGAG TGTGGTATGG CCCTATAATG GACTTTTAAA ATTACTATTC
85551 TATAATTTAA AAACAATACA CAATTGATAA TAAGCATGAC CTGGGTGAAT
85601 CTCAGAGATC AGAGGTAGGA TGACAGAAGC CAGATGCAA AGAGTGTATA
85651 CTGCATGACT ACATTTATAT GAAGTTCAA AATAGGCAA ACTAACCTAA
85701 GATAAGTCAG AATAGTGATT ACTCTTGCAA AGGGGTTTTG CCTGGAAGGG
85751 GCACAAAGAA ACCTGGGATG TTAGAAATGT TCTATATCTT AATCTGGATA
85801 GAGGATTACA AGAGTGGTAC AGATGTTGAT ATATATGTAA AAAATCATCA
85851 AATTTAAGAT TTTTGCATT TAATGTAAGT TATACTCTAG TTTAAAACAA
85901 GTGATAAAG GGCCAAGAAA AGTACAATTT AGTGTTACAG GAGATCAGAA
85951 GAGAGATAAT GTTTTCATTT GGAGAATCAA TGGAGGCTTC TTCTTGGAAG
86001 AAGTAGCACT TGACCCAAGG TAGGTTTCAA GTATGATGAA AAATGGGTCA
86051 GAGCTTTCCA GATATAGGGA ACAGAGCACA GCCACAGAGG TGGGAAAACA
86101 TGGAACTTTT AGAGAGAATC ATGAGTAGTT CTATTGGGAA GGTTCTTGGA
86151 GTAATGAATA AAGTTGTTTG CAAAGGTAGG CTGAGGTCAA GAGGGCTTTA
86201 TTTTGAGACA TAGACATTGA ACTCCACAAG AGCTTTTGA GTGGAGTTAT
86251 ATAATATTGC CAGAGCTTGC TTCAGGAAGG TTAGATGATA AATTATATCA
86301 AGGAGAGAAG GTAACCTGGG TTATCAGTCA AGAACCTTTT ATAATATCCA
86351 TGCATGAGAT TGTGAGACCT AAACCAAGCT GGCAGAGGTG GGTAGAATGA
86401 GGAAAGATGA GAATGAATC AGTAAGTTGA AATGACTGGA CTTGCAATTA
86451 AGTGTATCTG AGATGTGATA GAAGGTCAA GATGAACCTG AGGTTTGTG
86501 CCTGGATGAA TGAGAAATTT GAAAGACAGG TTTGAAACAA TGGTGATGAG
86551 TTTAATTATG AATATGCTGG GTAGAATATG GAGAGAGAAG AAGGAGAGGG
86601 AGGAGAGAGA GAGAATGAGA ATGAGAGAAG GAAGTTAGAA GTGAGGCTCT
86651 GGATCTTAGG GAACCATCAG GGCTTGACTT TGTTTGGGTT CCTACAATAT
86701 CAGAGCCCTG AAACAAAGAC TAGGGTACAA ATAGAGTTT AGGAGTAAT
86751 CTTAGAAATC AGAAGCCAAT AAGTGGGAAG AGTGAGAAGG AGAAGCCAGA
86801 AAAGCTGTGC AGAATGCATG GTTGAAC TAGGCTGCTGT GGGTAGAGGG
86851 ATGCAGAGGC AGGACTCTTC TAATAGTGTT TTAAGTTTGA AGTTTCTCTT
86901 CCTGCATTCT TTCCTGAATT TTTGGGAAA AAAAGAAAA GCAGGCCGGG
86951 CACAGTGGCT CACGTCTGTA ATCCCAGCAC TTTGGGAGGC CAAGGCGGGT
87001 GGATCACAA GTTAGGAGTT TGAGACTAGC CTGGCCGACA TAGTGAAACC
87051 CCATCTCTAC TGAAAATACA AAAAATTAGC GAGGCATGGC GGCAGGCACC
87101 TGTAATCCCA GCTACTTGA GGCTGAGGCA GGAGAATGGC TTGAACCTGG
87151 GAGGTGGAGG TTGCAGTGG CCGAGATTGC ACCATCGTAT TCTAGCCTGG
87201 GTGACAGTGC AAGACTCCCT CTCAAAAAAA AAAAAAAAAA AAGGCAATCT
87251 TGCTTAAATA TAACTATTGT TTTCTAGCAC TATTGTGAAT TTCTCTTGA
87301 AAAATTTCTT GTATTTCTGG GAATTTGGAG TGAGGAGGGG GAGGAAGTTG
87351 GAGTGAGGAG GGGGAGGAAG TTGTCTTCAT CTTGATCCAA TTTTGAATG
87401 GTTTTAAAT GGAGCAGTTA TATATATATT ATTCCTGATT GTAAATGTAT
87451 AATCTATGTT TCACTTCTGT TGGTTTTAG TATTTAATT AGTATAAAC
87501 ATGTTTCTCT CAGAAAATA ACTTATTTAT CTTAATTGTC TGACTTTAAA
87551 ACTTTTAAA TCCAAAGGAA TGATTTTTTT TAGCATATGG CATAAACATT
87601 TATAAATAAT TAAAAAGCCA AGACTATTCA CAGTTCACTG AAAGCTACTT
87651 TGAGAACGTA GCACTAAAAC ATGTTCTTGC CGAAGGGAGT CATGCTGTAT
87701 TAACAAAACCT CCAGTGTCGT GGCTTACAGC AGCAATCATT TCCTGCTCAT
87751 GTTGCAATAT GACAGATATG GGTCACTGTC AAGTCTGCTC TACATGTCTT
87801 CATTCAGTA CCCAACTGA AGGAGCAGCC CTATCCAGGA CAGGCTTTAC
87851 TCCTGGTGGG GGGAAAAGCA AGAGAGTGGA AACCCCTTGC TCAGACATGA
87901 CAATCATCCA GTCTGCTCAC ATGTCATTAA CCAGAGAAGT CACATGACCA
87951 CTCTTAATGT CAGAGGGGGT GGAGATGCCT CTTCTCCCA AAGGGACCCC
88001 TCACTGCAAG GAATAAGAAG CGTGAATACT TGGGAACAAG AATAAGTCTA
88051 CTACAATGTT TCACTCAGCT TTAGACTAAA ATCTTTCAA TTACAGCTGA
88101 TAAATATAGG CTTGTCTACA AAGCATTATT CTAGTTTCT CTTATATGA
88151 TCTACAGTAT ATATTAAGT ATATTTTGAA AATTACATAA ATTGGCTTAC

FIGURE 3, page 28 of 141

```

88201 ATATGAGTTA AGATTACCTT GGAAACAATA CATGTGAAGA GGTTAGGTTT
88251 GTTGCAAATG CCTTGCAAAA ATTTTAGTTT ATATATATGA TGGTTGATTT
88301 TATGTGTCAA GTTGACTGGG CAGTAGATGC CCAGAATTAC ACATTGTTTA
88351 CAGGTGTGTC TTTGAAGATG GTTCTGGATG AGATTAGCAT TTGAATCTGT
88401 GGACTCAGTA AAGTAGATTG CCCTCCACAG TGTGGGCAGG CATCATCCAA
88451 TCCCTTGATG GCTTGAATGG AACAAAAGAC AGAGGAAGGA GGAATTTGCC
88501 CCCTTGTTCC TGCCTCACTA CTTAAGCTAG ACATCTCATC TCCTACCCCTC
88551 AGACTGGGAT TTACACCATT GGCTCCCTCG GTTCTCAGTC CTTTGGACAG
88601 GGACTGAATT ACACTATTGG CTTTCCTGGG TCTCTAGCTT GTAGACAGCA
88651 GATTGTGGGA CTTCTCAGCC TCCCTAATTC ATGAGCCAAT TCTTCATAAT
88701 AAATCATTTA AGATAAGGA CCAGACTAAT ACAGTGCAGC CGTAGAGGAG
88751 ATAAAGAAGA CCCTGGAAAC ACTAAGAAGA ATGAAGTTAC AGAAAAAGTG
88801 AAGAATCTGT TCACTCCTTT GGAGCTTCCT GTACTTATTT TAATTTGGTT
88851 TATTTATACA TTATTCTAAA TCTATAACAT ATGGCATAAA CACATAAATA
88901 ATGATGTTAA AACCTGAGAA AATTCACAGT TCACTAGAAG CTATCTTGAG
88951 AATGTTGCAC TGAAACCCAT TACTGTTCTG GGCGGGGAGT TCAGTTATGT
89001 CAATTTCTTA AGATAAGGA CAGAGCAGCC TCTCTGCAGA GAGCCCACCT
89051 GCTGGTGGTC TCAAGGCCTT GCTGATTTTG GTGCTTTCCA AGTAGAGGAG
89101 AGAACAGGGC TGGGCACTTA CTCCAAGACG GCTTCCTCAT CACCTCACTG
89151 CCCATGGATT TCCCAGCCAG CTTGGCGAGG TATTGTGGTA GAGTGGCTAA
89201 AATGTTCCCT GAAAGGTAGT GTTTTCTTTC TTTCTTTCTT TCTTCTTTC
89251 TTTCTTTCTT TCTTTCTTTC TTTCTTTCTT TCTTTCTTTC TTTCTTTCTT
89301 TCTTTCTTTA TTATACTTTA AGTTCTAGGA TACATGTACA CAACGTGCAG
89351 GTTTGTGTACA TATGTATACA TGTGCCATGT TGGTGTGCTG CACCATTAAG
89401 CTCGTCATTT ACATTAGGTA TCTCTCCTAA TGCTATCCCT CGCCTTCCCC
89451 CCACCCCATG ACAGGCTCCA GTGTGTGATG TTCCCCACCT TGTGTCCAAG
89501 TGTTCTCATT GTTCAGTTCT CACCTATGAG TGAGAACGTG CAGTGTGTTG
89551 TTTCTGTGCC TTCTGATAGT TTGCTCAGAA TGATGGTTTC CAGCTTCTTC
89601 CATGTCCCTA CAAAGAACAT GAACACATCC TTCTTTATGG CTGCATAGTA
89651 TTCCATGGTG TATATGTGCC ACATTTTCTT AATCCAGTCT ATCACTGATG
89701 GAAATTTGGG TTGGTTCCAA GTCTTTGTGA TTGTGAATAG TGCCACAATA
89751 AACATACGTG TGCATGTGTC TTTATAGCAG CATGATTTGT AATCCTTTGG
89801 GTATATACCC AGTAATGGGA TGGCTGGGTC AAATGGTATT TCTAGTTCTA
89851 GATCCTTGAG GAATCGCCAC ACTGTCTTCC ACAATGGTTG AACTAGTTTA
89901 CAATCCCACC AACAGTGTA AAGTGTTCCT ATTTCTCCAC ATCCTCTCCA
89951 GCACCTGTTG TTTCTGACT TTTTAATAAT TGCCATTCTA CCTGGTGTGA
90001 GATGGTATCT CATTTGGGTT TTGATTTGCA TTTCTCTGAT GGCCAGTGAT
90051 GATGAGCATT TTTTCATGTG TCTTTTGGCT GCATAAATGT CTTCTTTTGA
90101 GAAGTGCTG TTCAATCCT TTGCCACTT CTTGATGGGG TTGTTTGATT
90151 TTTTCTTGTA AATTGTGTTA AGTTCTTTGT AGATTCTGGA TATTAGCCCT
90201 TTGTCAGATG GGTAGATTGC AAAAATTTTC TCCCATTCTG TAGGTTGCCT
90251 GTTCACTCTG ATGGTAGTTT CTTTGTCTGT GCAGAAGCTC TTTAGTTTAA
90301 TTAGATCCCA TTTGCCAATT TTGGCTTTTG TTGCCATTGC TTTTGGTGT
90351 TTAGTCATGA AGTCCTTGCA CATGCCTATG TCCTGAATGG TATTGCCTAG
90401 GTTTTCTTCT AGGGTTTTTA TGGTTTTAGG TCTAACAGTT AAGTCTTTAA
90451 TCCATCTTGA AGAAATTTAA TATAAGGTGT AAGGAAGGGA CCCAGTTTCA
90501 GCTTCTACT TATGGCTAGC CAGTTTTCCC AGCACCATT ATTAAGAGG
90551 GAATCCTTTC CCCATTGCTT GTTTTCCTCA GGTGTGTCAA AGATCAGATA
90601 GTTGTAGATG TGTGGTATTA TTTCTGAGG CTCTGTTCTG TCCCATTGGT
90651 CTATATCTCT GTTTTGGTGG CAGTACCGTG CTGTTTTGGT TACTGTAGCC
90701 TTGTAGTATA GTTTGAAGTC AGGTTGTGTG ATGCCTCGAG CTTTGTCTT
90751 TTGGTTTAGG ATTGTCTTGG CAATGTGGGC TCTTTTTTGG TTCCATATGA
90801 ACTTTAGTTT TTTTTCCTCA ATTCTGTGAA GAAAGTCATT GGTAGCTTGA
90851 TGGGGATGGC ATTGAATCTA TAAATTACCT TGGGCAGTAT GGCCATTTTC
90901 ACGATATTGA TTCTTCTAC CCATGAGCAT GGAATGTTCT TCCATTTCTT
90951 TGTGTCCTCT TTTATTTTCA TGAGCAGTGG TTTGTAGTTC TACTTGAAGA
91001 GGTCTATAC ACATCCCTTG TAAGTTGGAT TCCTAGGTAT TTTATTCTCT
91051 TTGAAGCAAT TGTGAATGGG AATTCATTCA TGATTTGGCT CTCTATCTGT
91101 TATTGGTGTA CAGGAATGCT TGTGATTTT GCACATTGAT TTTGTATCCT
91151 GAGATTTTGC TGAAGTTGCT TATCAGTTTA AGTAGATTTT GGGCTGAGAC
91201 GATGGGGTTT TCTAAGTATA TGATTATGTC GTCTGCAAAC AGGGACAATT
91251 TGACTTCTC TTTTCTGAT TGAATACCCT TTATTTCTT CTCCTGCCCTG
91301 ATTCCCCTGA CCAGAACTTC CAACACTATG TTGAATAGGA GTGGTGAGAG

```

FIGURE 3, page 29 of 141

91351 AGGGCATCCC TGTCTTGTGC CAGTTTTCAA ACAGAATGCT TCCAGTTTTT
91401 GCCCATTACG TATGATATTG GCTGTGGGTT TGTCCTAAAT AGCTCTTATT
91451 ATTTTGAGAT ACATTCCATC AATACTTAGT TTATTGAGAG TTTTGGGTAT
91501 GAAGGGCTGT TGAAGTTTGT CGAAGGCCTT TTCTGCATCT ATTGAGATAA
91551 TCATGTGGTT TTTGTCTTTG GTTCTGTTTA TATGATGGAT TACGTTTATT
91601 GATTTGCATA TGTTGAACCA GCCTTGCATC CCAGGGATGA AGCCAACTTG
91651 ATCGTGGTGG ATAAGCTTCT TGATGTGCTG TTGGATTGAG TTTGCCAGTA
91701 TTTTATTGAG GATTTTTGCA TCGATGTTCC TCAGGGATAT TGGTCTAAAA
91751 TTCTCTTTTT TTGTTGTGTG TCTGTGGGCT TTGGTATCAG GATGTTGCTG
91801 GCCTCATAAA ATGAGTTAGG GAGGATCCCT CTTTTTCTGT TGATTAGAAT
91851 AATTTACAGAA GGAATGATAC CAATTCATGT TTGTACCTCT GGTAGAATTC
91901 GGCTGTGAAT CCATCTGGTC CTGGACTTTT TTTGGTTGGT AGGCTATTAA
91951 TTATTGCCTC AATTTACAGG CCTGTTATTA GTCTATTCAG GGATTCAACT
92001 TCTTCCTGGT TTAGTCTTGG GAGGGTGTAT GTGTCCAGGA ATTTATCCGT
92051 TTGTTCTAGA TTTTCTAGTT TATTTGAGTA GAGGTGTTTA TAGTATTCTC
92101 TGATGGTAGT TTGTATTTCT GTGGGATCGG TGGTGATATC CCCTTTATCA
92151 TTTTTTTTGC ATCTATTTGA TTCTTCTCTT TTTTCTTCTT TATTAGTCTT
92201 GCTAGCTGTC TATCAATTTT GTTGATCTTT TGAAAAACCA GCTCCTGGAT
92251 TGATTGATTT TTTGAAGGGT TTTTGTGTGC TCTATCTTCT TCAGTTCTGC
92301 TCTGATCTTA GTTATTTCTC GCCTTCTGCT AGCTTTGAAT GTGTTTGCTC
92351 TTGCTTCTCT AGTTCTTTTA ATTGTGATGT TAGGGTGTCA ATTTTAGATC
92401 TTTCTGCTT TCTCTCATGG GCATTTAGTG CTATGAATTT CCCTCTACTC
92451 ACCGCTTTAA ATGTGTCCCA GAGATTCTGG TATGTTGTGT CTTTGTCTC
92501 ATTGGTTTCA AAGAATATCT TTATTTCTGC CTTCAATTTT TTATGTACGC
92551 AGTAGTCATT CAAGAGCAGG TTGTTTAGTT TCCATGTAGT TGAGCGGTTT
92601 TGAGTGAGTT TCTTAATCCT GAGTTCTAGT TTGATTGCAC GGTGGTCTGA
92651 GAGACAGTTT GTTATAATTT CTGTTCTTTT ACGTTTGCTG AGGAGGGCTT
92701 TACTTCCAAC TATGTGGTCA ATTTTGGAAT AAGTGCAATG TGGTGCTGAG
92751 AAGAATGTAT ATTCGGTTGA TTTGGGGTGG AGAGTTCTGT AGATGTCTAT
92801 TAGGTCTGCT TGGTGTGAG CTGAGTTCAA ATCCTGGATA TCCTTGTTAA
92851 CTTTCTGTCT TGTTGTTCTG CCTAATGTTG ACAGTGGGAT GTTAAAGTCT
92901 CCCATTATTA TTGTGTGGGA GTCTAAGTCT CTTTGTAGGT CTCTAAGGAC
92951 TTGCTTTATG AATCTGGGTT CTCCTGTATT GGGTGTATAT ATATTTAGGA
93001 TAGTTAGCTC TTCTTGTTGC ATTGATCCAT TTACCGTTAT GTAATGGCCT
93051 TCTTTGTCTC TTTTGATCTT TGTTGGTTTA AATTCTGTTT TATCAGAGAC
93101 TAGGATTGCA ACCCTGCTT TTATGTTTTG TTTTGTTTTC CAGTTGCTTG
93151 GTAGATCTTC CTCCATCCCT TTATTTTGTG CCTATGTGTG TCTCTACACA
93201 TGAGAGGGAT CTCTGAATA CAGCACACCG ATGGGTCTTG ACTCTTTATC
93251 CAATTTGCCA GTCTGTGTCT TTTAATTGGA GCATTTGCGC CATTACATT
93301 TATGGTTAAT ATTGTTATGT GTGAATTTGA TCCTGTCATT ATGATGTTAG
93351 CTGGTTATTT TGCTCGTTAG TTGATGCAGT TTCTTCCTAG CATCGATGGT
93401 CTTTACAATT TGGCATGTTT TTGCAGTGGC TGGTACTGGT TGTTCCCTTC
93451 CATGTTTAGT GCTTCCTTCA GGAGGTCTTG TAAGGTAGAC CTGGTGGTGA
93501 CAAAATCTCT CAGCATTTGC TTGTCTGTAA AGGATTTTAT TTCTGCCTCA
93551 TTTATGAAGC TTAGTTTGGC TGGATATGAA ATTCTGGGTT GAAAATTCTT
93601 TTCTTTAAGA ATGTTGAATA TTGGCCCCCA CTCTCTTCTA GCTTGTAGAG
93651 TTTGTGCTGA GAGATCCGCT GTTAGTCTGA TGGGTTTCCC TTTGTGGGTA
93701 ACCCGACCTT TCACTCTGGC TGCGCTTAAC ATTTTTCCTT CATTCAACT
93751 TTGGTGAAAC TGATAATTAT GTGGCTTGGA GTTGCTCGTC TTGAGGAGTT
93801 TCTTTGTGGC ATTCTCTGTG TTTCCCGAAT TTGAATATTG GCCTGCCTTG
93851 CTATATTGGG GAAGTTCTTC TGGATAATAT CCTGAAGAGT GTTTTCCAAG
93901 TTGGTTCTAT TCTCCCTGTC GCTTTCAGGT AACTAATCA GATGTAGATT
93951 TGGTCTTTTC ACATACTCCT ATATTTCTTG GAGTCTTTGT TCGTTCCTTT
94001 TTTACTTTTT TTCTCTAAAC TTCTCTTCTC GCTTCATTTT ATTCATCTGA
94051 TCTTCAATTA CTGGTACCTT TTCGTCCACT TGATCAAGTC AGCTACTGAA
94101 GCTTGTGCAT GCGTCACATA GTTCTCGTGC CATGGTTTTC AGTTCCATCA
94151 GGTCAATTTAA GGTCTTCTCT ATGCTGTTTA TTCTAGTTAG CCATTCATCT
94201 AATCTTATTT CAAGGTTTTT ATCTTCTTTG AGATGGGTTT GAACATCCTC
94251 CTTTAGCTCG GGAAGTTTTG TTATTACCTA TCGGCTGAAC CCTTCTCTC
94301 TCAACTCGTC AAAGTCATTC TTCGTCCAGC TTTGTTCCGT TGCTAGCGAG
94351 GAGCTAGTTT CCTTTGGAGG AGAAGAGGTG CTCTGATTTT TAGAATTTTC
94401 AGCATTTCTT CTCTGGTTTC TCCCCATCTT TGTGGTTTTA TCTCCCTTTG
94451 GTCTTTGATG ATGGTGACGT ACAGATGGGG TTTTGGTGTG GATGTCCTTT

FIGURE 3, page 30 of 141

94501 CTGTCTGTTA GTTTTCTTC TAATAGTCAG GACCCTCAGC TGCAGGTCTG
 94551 CTGGAGTTTG CTGGAGGTCC ATTGCAGACC CTGTTTGCCCT GGGTATCACC
 94601 AGCAGAGGCT GCAGAACAGC AAACATTGCA GAATGGCAAA TGTTGCTGCC
 94651 TGATCCTTCC TCTGGAAGCT TGGTCTCAGA GGGGCACCTG GCTGTAGGAG
 94701 GTGTCTGTTG GCCCCACTG GGATGTGCCT CCCAGTTAGG CTAATCGGGG
 94751 CTCAGGGCCC AGTTAAGGAG GCAGTCTGTC CGTTCTCAGA TCTCAAACCTC
 94801 TGTGCTGGGA GAACCACTGC TCTCTTTAAA GCTATCAGAC AGGGACGTTT
 94851 AAGTCTGCAG AAGTTTCTGC TGCCTTTTGT TCAGCTATGC CCTGCCCCCA
 94901 GTGGTGGAGT CTACAGAGGC AGGCAGGCCT CCTTGAACCTC CGGTGGGCTC
 94951 CACCCAGTTT GAGCTTCCAG GCCACTTTGT TTACCTACTC AAGCCTCAAT
 95001 AATGGTGGAG GCCCTTCCC CAGCCTCGCT GCCCCTTGC AGTTGGATCT
 95051 CAGACTGCTG TGCTAGCAGT GAGAGAGGCT CCGTGGGTGT GGGACCCTCC
 95101 AAGCCATGCA TGGATATAA TCTCCTGGTG TGCCATTTGC TAAGACCATT
 95151 GGAAGACAC AGTATTAGGG TGGGAGTGTC CCAACTTTCC AGGTACCATC
 95201 TGTACCGCT TCCCTTGAAT AGGAAAGGGA ATTCCCTGAC CCCTTGCACT
 95251 TCCCAGGTGA GGTGATGCCC CGCCCTGCTT CAGCTCACGC TCTGTGGGCT
 95301 GCACCCACTG TCCAGCAAGC CCCAGTGAGA TGAACCCGGT ACCTCAGTTG
 95351 GAAATGCAGA AATCACCCAT CTTCTGTGTC GCTCATGCTG GGAGCTGTAG
 95401 ACTGGAAGT TTTCTATTCT GCCATCTTGG AACCTCCTCC CTGTTGTGTT
 95451 TTTTCTGAA AGGTAGTGTT AAGAACTCAT TTTAATGTA GTGAGGCTTC
 95501 CAGGGAAGAG CCATACTTGG AAATCTGAGT CCGTAAATAT GACTGTGGAA
 95551 GGAGGTGTCC TACCCAGAT TTGAAGATGG AAAAGCAGAG AGAAGTTGTG
 95601 TTTGGTGTTA CTGGAGATTC CTGCTTTCTC CTGGTCTTCA CTTCTTGAGG
 95651 ATATCCTGCA GTCACTTTTT CAAGGTAACC TCACCCCTGA GCCAGGTGTA
 95701 GGCACACTCC TGATATGCTG ACAGTGGCCA ATAGTTTGAG GAAGACCTGA
 95751 CCCTGCTTCT GACTTACAAC ATAGAGGACT CATTGTGTTA GTGAGGGGAA
 95801 TGAGACTGAT GAAGAAAGGC AGGTGCCTCA GTGCCAGGA CAGGGGCCAC
 95851 ATGGCAAAGA CCAGTAACAG GAGTTGCCTG GGTGTGTCAT CACAAAGGAG
 95901 CCATTGGCTG TGCCAGCACC TTTGGCAAGA AGAGTTTGTG ATCCACCCTG
 95951 AGAACCTGCT AGATGAAGGA TAGACCTCCA GGGAGGGTTT CATATCATAA
 96001 ACTGTTTATA TTAGGGCTTG AGGGGAGGTG AGAGGAATTG TCCATACCTT
 96051 CTCACAGTT CTACCTTGGG CTGGAGGCCT GAGAAATGCC TGCCCTCTGT
 96101 ACCTCCACAG ACTGTTCTTC ATCCTAGCAT GGGCCCTGGA TGCTGGGGAA
 96151 GAATGACCTG ATGGGGAGAT GGAGATGGGA TTTTGTAGAT GAATTTGAAC
 96201 CAGAACTGT CAGCAAATCT TAACCAGATC ACTTGGGTGT CATGAAACAT
 96251 AGAAATGAGA GGGACCCACC ACTTGAACAG ATATGGTATG GTGCACTTGA
 96301 GATAATAGAT GGAGAACTGT GTTGAAGCTT TTAGAAGAAA GATTTCATAT
 96351 AAACCTTATT GCCTGTTACC TTATTATTG TTGGATTTC TTTTCATATA
 96401 CTTCAAAGGA ATGGATATTA GCCAAACATA GGATAAAATT ATGCTGGCTC
 96451 ATTTTGGCTT ACTGTAACCA CAAAGCCAAT ACATTACGAT TTTTTTTTTC
 96501 TCCTGAGACG GAGTCTTGCT CTGTCACCTA GGGTGGAGTG CAATGGCATG
 96551 ATCTCGGCTC ACTGTAACCT CTGCTTCCCA GGTTCAAGCA ATTCTCCTGC
 96601 CTCAACCTCC CAAGTAGCTG GGATTACAGG CATACGCCAC CATGCCGTC
 96651 TAATTTTTGT ATTTTTAGTA GAGATGGGGT TTCACCGTGC TGGCCAGGCT
 96701 GGTCTCGAAC TCCTGACCTT GTGATCTGCC TGCCCTCGGC TCCCAAAGTG
 96751 CTGGGATTAC AGGCATGAGC CACCATGCAT GGCCAATTAT AATTTTCAA
 96801 TAGATATTTA GCAAATAGCT TGATACCTGG TTTGTTGCAT AGAATTTATT
 96851 GTTCCATTAC CACAGTGCCA GCTAATTACT TCTCATAACT GCTTTCTAAC
 96901 ATATTGTATG CCTTATTCTT AAAGTATCTA CTGATGAGTT ACTAATTTAT
 96951 ATATTTATAG AGGCCTATCA ATGTATTATT TGTAATTCAT CTTCTGCTTG
 97001 TCTAGTCTAG GTGTCATCAG GTGAGTTTCT TTGGAATGTT TTACTTACTC
 97051 CAAAGTTACA GCACCAAGTC TTCTGGTGGG CTCCTTAGCT CACTATTGCA
 97101 AATCCTAAAC CTGTTGTCTC TTTGACTTCC TAGAATCAAT AGCTATAGAA
 97151 ACCAAGTGAT CAACTTAAGA CACTCTTAAT TGCAAATAAC AGAAGCAGAT
 97201 TAAACAGTAG AGAAAATT TTTACCTTGGC TAACATGAAG TCTCCAAAGT
 97251 GAGTTGTTCT AGAGCTGGTT AACTTGGGTG GCTGAGCAGT ATTCTCTGGG
 97301 GTTCTAGTTC TTTCTCTTTA TTCCACCATT CTCAGTGTGT TTGGCTTTTG
 97351 TAGTCAGACT TGTCTCTTTG TGGTTGCCAG AATGGCTGTA ACACGACCAC
 97401 GTATCCCGCC TTCACACAAC AGTAACCAAA CTCCAGAAAA GGTAAGAGGG
 97451 ACATATGGCA TGTCACTCCC CCCTTTTTTT GTCTTTTATA AGAGTAGGGA
 97501 AGTATTTTCT ACAAGATTCC AGCAGACTTC CTTGTGTCT CATTGATGTT
 97551 AGAAAAATTT CAAAAACAT GGAAGAGACA AAAGATATTA GTGGATATTT
 97601 TTCCACTGCA GTGCTGGACT TAACCTTCTA TTATCTGGGC TACTTCCTAA

FIGURE 3, page 31 of 141

```

97651 CTCTGTGGAG GCAGAGGCAC ACTTGAATAT TTTTGTCCAG CAGAGATGCA
97701 AATAATTTCT GTCCAGTAGA ACAGATATCC CTGGTGATGA TGGTTTATGG
97751 CCTTGTTGGG CATTAACCAG TTTTGTATCT AACTCAGCAA TCATATCCCC
97801 CTGCCACATT CACCCCTAC ACCCCCACT TCCTTTACCT AACAGGCTCG
97851 AGGAGGGCTG AGCCTCCCCA GAGGCTCATG GGGTTCTGGT GTCAAGGGAG
97901 AAGAGGAGGA GAATGGTTAT TGGGTAGGCA TTTCACAGTT CCTGCCACAC
97951 CAAGAGAACC CCAAGAGTAG GCATAGAGAA AGCCAGGTTT CATTTAACAC
98001 AGTTAGTAAA TACTGTTGTT CTCTTTTAA ATCAGTTAAG AAGTCAGCAA
98051 CATACTCATG TACAGCATAG GTCTAGGTAT CGTGGGAATG TAAGAAGGCA
98101 GTAGAAAATA GTTATTAAAT AGCAAAGTTT TTATAGATAA ACAGACCTAT
98151 GTGAGAAATG TGGTTTATAG AGTCAAAGAG ACCTCAGTTT GAACCAATAG
98201 GCTATACAAC ATTGGGCAAG TTATTTGGCC TTTCTAGGCC TTGATTTCTT
98251 CATCTCCAGA TTGGGCATAA CAGTAAAAAA ATAGTAGTAT AGTGCTTAGG
98301 ATTATAGCAT CTGGGGTTAT GGACCTCAAG ATGAAGTGGC CTAGTGTTGC
98351 ATTGCTCTAGT TTTGCTCTTC TCTTTTCTCT CTATTCTTAG AAACATACTT
98401 ATTCCTCTCT AATCCACTAA AGGGTTAAAG AGGCTAAAGA TTATTTGAAT
98451 TAGGGGAAAT TCTCACTATC ATATCCAATT CTTCACTTTA TATGCTGATG
98501 TTATAGGCCG GGTGAGTTT CTGCCCATTT GTGTCCTATA AAGTAAACTA
98551 TATGATCTTT ATGAGTGACT TTTCTTTAAA ATGTTGTTAG TCAGAATTTG
98601 CTTAGTCAGA ATAAAGCTGG ATGGTTGAGG CCTGAACACT TTACAAAGGT
98651 AACATTATTA CACTTGTAAT ATCATTAATT CTAATGGTAA AAATTATTTT
98701 TATAATTGAT ATTTCTGGTT TTAATTAATA ATAGTAATAT TAATTTGGTG
98751 GGCATGTAAC TGAGAGTATG CATTACTGA GAGAGATATT TCCTTATGAC
98801 CAGGTGAATG TCTTTATTGG TAATTATTTA CAATTATAAA TAATTTCTTA
98851 GTAAAGTGAC AGTGGTTAGG TTTCCCTTCT GCCATCTCTT ACAGTTGCTG
98901 ATGTACTTAA AAAAACTCT CTAACCTGAG TGTAAGCATT ATGAGATACA
98951 TAGCCTTGTC TTATGAATCT TTGTATCTGT CACATTATGT AGTACAGCAC
99001 ATAACATCTA GTTGGCACTC AATAATTGTT TTTTGGATTA ATGAATGAGT
99051 CCCACTAGAT AGTATTCATC TTTGTACCAA GGATAGTGTT TTAAAAACCA
99101 ACATGCAATTT ATTGAGCATC TCCTGTGAGT GAAGAACTGT GAAGAGGAAG
99151 AGATGATATT AATAGAAATG TGGCTCAAGC ATTTGCTAAG GCTGCCAGAA
99201 GCATTGGTAG GGCCAGATCT TGAAATCTCT AGCAGGCCAC ATATAGAACT
99251 GTAGACTCTA TTCTGGAAGC AGTGCAGAGC CATTGAAGGA CTTAAGTTGG
99301 TGTTTAAAGG ACAGATTTTC ATTTTCTAAA GCCACAACCC CATTCTGAC
99351 CTAAGGCTCA AGAATACTGC TCCCAGACTG GGTTCTCCTA TTAAAGCAGG
99401 AGGACAGATA CACTGCAGTC AATTTCTTCT TAAAGACTTT GACTCCAATT
99451 GTGTCCTTCT TTTCTATTAT TTTTATTCAG GATTTCAGTT CTACTTCCTT
99501 TATGTACCCC ACAAATTATT AATTAGTGCT ACCATTATTA TTGGTTTACA
99551 AGCCAAAACCT AGTTTAGATT TCCCCACTTT TATCAATCTC TTGGTTCACC
99601 ACTTCTTCTT CCACCCCATG TCTTCCTTCT GTGGTCATTT TTTTTCCTCC
99651 CCAAAACAAA TCCTTAAGTT ACGTGAATGA TAAACACTCA GTTCTTTTGT
99701 TTGTTTGTGTT GAAAATGTTT TTATTTTCTC CTCATCCTTT TATAATAGTT
99751 TAGCTACTAT TTCAGCTAAA AATGTATTAT TATTTAGCTA TTATTAAGAA
99801 TGAAATTCCA GATTGACAGA TTTTATCTCG ACATTTTGAA AATGTTATCT
99851 CACTGTCTTC TGGATTCTGT TATTGATGTT AAGTCACTTT CCATGTAACA
99901 GACATTCTTA TTAAGGTAAT GTCTTTTCTT TCAGTTGATT CTCAACATCT
99951 TTGTCCTTGG TGTTTTCCAA TATTACAGTG TTATGTCTAC TTGTGGATTT
100001 TTGTTTTTAA TTCTGCTTGG GATTTCTTTT GCTTCTGAGC TTGTGAATTC
100051 ATGAAAACCT CTAAATCTCG AAAATACCTC GTCAATCTCT CTTTGAATTT
100101 TGCTTCTCCC CTATTCTCCT TTTACAATGC TTAAAGATGT ATGTTAGACC
100151 ATCACATTCT GTTCTTCATT GCTATGCACT CCTTCTAGGA ATCCATTTAT
100201 ATATATATTA GAACTTTAAG CCTGTATTTT AGATGTCTCT TATACTCTTT
100251 TCTATGTTTT CTTTTTCTTT CTTTCTTTCT TTTTTTTTTT TTTTTTTGAG
100301 ACAGAGTCTC ACTCTTGTTG CCCAGGCTGG AGTACAGTGG CGCGATCCTG
100351 GCTCACTGCA ACCTCCGCCT CCCATGTTCA AGCAATTATC CTGCCTCAGC
100401 CTCCTGAGTA GCTGGAACCT CAAGTGCTCG CCACCATGCC CGGCTAATTT
100451 TTGTACTTTT AGCAGAGATG GGCTTCATCA TGTGAGCCAT GCTGGTCTTG
100501 AACTCCTGAC CTCAGGTGAT CCACCCACCT TGGCCTCCCA AAGAGCTGGG
100551 ATTATAGGCG TGAGCCACTG TGCTTAGCCT TTTCTATGTT TTTAATCTTT
100601 TTTTCTTTTT GCACCTCAGT TGAATACTT TTCACTAACC ATTATTCCAG
100651 TTTCTFAAATC CTCTCTTCTG CTGTGTCTAA TTTGATTTCA AACATATGCA
100701 CTAAATCTCT AATTTTAGTA AAATTTTGT TCAAGTTTGT AATTTCCATT
100751 TGATTCTTAG AAAATATATA TATGCACTCC TAGTGCATAT AAAAATATAT

```

FIGURE 3, page 32 of 141

```

100801 ATATATTTTC TATATAGAAA ATATATAGAA TCTAGCTCTC TATTGAAATT
100851 CTCCATTGTG TCAGTTATTT TCTTGAGCAA TAATCACAGT TATTTTCAAA
100901 TCCTTGTCCTA ATAATTTCAA TAGGTGGATC ACTTGCTGAT TTATTTCTAT
100951 ATCTCTTTTT TTCTTTTGGT TTTAATCAT TTGATCTTAT CTTTGGGTAT
101001 GCCTGGTAGT TTTTGAGTGA ATGCTGAACA ATATATGTGA AATATTGAGA
101051 GATGTTAGAT GATATTACTT TTCTCTGCCT GACAGTTATA TTAGGGCAG
101101 ATCACCTTGA TCTAATGAGG AACTGAAATA GTTTAACTGT AGGCTGTAGG
101151 CTTTTGGAGG GTTGGTCTAT TTTCAGTTTG CCTTTATTTT TATGAAGAAG
101201 TTTTTCAGAG CTTTCAGCTG AAGGGTTTTAG TTTTTTACTA AGATACCTCT
101251 TCCTTTGTGG ACCCTGAAAT CCAAGTTTAT TGAATCTACT CAAAGCTCTG
101301 ATTAATAAAT TAAATAAAC TTTATTTTTT AAAGCAGTTT TAGGTTTACA
101351 GCAAAATTGA TTGGAAGGTA CAGAGATTTC CCTTATACCC CCTGCTCCCA
101401 CACATGCATT GCCTCCCTG TTATCAGCAT TGCTACCAGT CATACATTTG
101451 TTATAACAGA TGAACCTACA TTGACAGATC ATTATCATCA AAGTCTATAG
101501 TTTACATTAG GGTTCATTCT TAGTGCTATA CATTCTTTGA GTTTGGGCAC
101551 ATGTATGACA TGTACCCATC ATTTTAGTAT CATAAAGTTG TTGCATGGCC
101601 CTAAAAATTC TCTGTGCTCT CCTTACTCAT TCTTCCCTCC CTCTTAAACC
101651 CTGGCAACCA CTTATCTTTT TGTTGTCTCC ATAGTTTAAAC ATTTTCCAGA
101701 TTGTCATATA GCTGGAATCA TATATAGATT TCTCAGGCTG ACTTCTTTCA
101751 CTTAGTAGTA TGCATTTAAG TTTCTTCCAT GTCTTTTCAT GCCTTAATAG
101801 CTCATATCTT CTTAGCACTA AATAATATTC TATTGTGTGA ATGTACCATG
101851 GTTTATTTAA CCATTCCGCT ACTGAAGGAC ACTTTTGTTG CTTTCAAGTT
101901 TTGGCAATTA TGAATAAAGC TGCTATAAAC ACCATTGTGC AGGTTTTTGT
101951 GTGGCAGTAG TTTTAAATTC ATTTGAATAA ATACCAAGGA ACATGATTGC
102001 TGGATTATGT GATAAGCATT TGTATCATTT TGTAAGAAAC TGCCAAACTG
102051 TCTTCCAAAG TGGCTGAACC ATTTTGTATT CCCACTAGCA GCGAATGAGA
102101 GTTTCGTGTA CTCCACATCC TTGTGAGCAT TTGGTGTGT CAGTGTCTCG
102151 ATTTGGGCCG TTCTAATAGG TGTGTAGTGG TACTTCATTG TTGTTTTAAT
102201 TTCTATTCTT CTGATGACAT ATGATGTAAA ACATCTTTTC AGGTTTATTT
102251 GCCTTTTGTG TATCATCTTT GGTTAGGTGT CTGTTAAGGT CTTTGGCCCA
102301 TTTTAAAACC AGATTATTTT CTTATTGTTG AGTTTAAATA GTTCTTTGTA
102351 TATTTTGGAT AACAGTCTTT TTTTTTTTTT TTTTTTTGAG ACTGAGTCTC
102401 GCTCTGTCAC GCAGGCGTGT CAGAGTCGCA ATCTTGCTC ACTGCAAGCT
102451 CCACCTCCCA GGTTCATGCC ATTCTCCCGC CTCAGCTCC CAAGTAGCTG
102501 GGACTACAGG TGCCACCAC CACGCCTGGC TAATTTTATT TTTGTATTTT
102551 TAGTAGAGAT GGCGTTTCAC CACGTTAGCC AGGATGGTCT CGATCTCCTG
102601 ACCTTGATGAT CTGCCTGCCT CAGCCTCCCA AAGTGCTGGG ATTACAGGCT
102651 TGAGCCACTG CACCCGCCA ACAGTCTATC AGATACGTCT TTTGCAAATA
102701 TTTTCTCCCA GTCTGTGGCT TATCTTTTTA TTCCTTGACA GTGTTTTCTT
102751 ACAGAGCAGA AATTTTTTAT TTTAATAAAG TCTAGCTTCT CAATCTTTT
102801 ATGGATTGTG ACTTTGGTGT TATATTTAAA AAGTTATCAC CAAACTTAAA
102851 ATCATCTAGA TTTTATCACA TATTATTTTC TAGCAGTTTT ATAGTTTTAT
102901 ATTTTTTAGG CCTATGATTT ATTTTGTAGT TAATTTTGC AAAGGCTGTA
102951 AGGTCTGTGT CTAGATTCAT CTATTGTATA TGAATGCCCC GTTGTTCAG
103001 CACCATTGTG TGAACGACT GTGTTCCATT GCATTGCCTT TGCTTCTTTG
103051 TCAAAGATCA GTTGACTGTA TTCACGCAGT TTTATTTCTG GGCTCTCTAT
103101 TCTGTTTTAT TGATTTTTTT TCTCTCCAAT ACTGTACTGT CTTAATTACT
103151 GTACTTTATA GAAAGTCTTG ACATCAGGTA GTATCAGTCC TCCAACATTG
103201 TTGTTCTCCT TCAAAAGACC CAATATTATG GATCTTTTGC CTTTCCATAC
103251 AAATTTTAGA ATCTGTTTAT CAATGCTTAC AAAATAACTT CCTGGGATTT
103301 TGATTGGGGT TACATTGCAT CTATTGATCA ATTTGGAAG AATCCATATC
103351 TTGACAATAT TGAGTCTACC TATCCATGAA CATGGATTAT TTTTCCATTT
103401 ATTTAGTTCT TCTTTGATTT TTTTTCATTA CAGTTGTGTA GCTTTCCTCA
103451 TATAGATCTT GTACATATTT TATTAGATT ATACCTAAGT GTTTCATTTT
103501 AGGGGTACTA ATGTAAATAT AGTTTGATAT AAATGTCAAA TTCTACTTGT
103551 TCATTGCTGG TATATAGGAA AGCAATTGAT TTTTGTGTAT CAACCTTGTA
103601 TTCTGCAACA TTGCAGAATT AATTACTTGT TAATTCAGG AGGTTTTTTT
103651 AATTGATTCT TTTGGATTTT CTAATTAGCT GATCATGTCA TCTGTAAACA
103701 GAGAGTTTGT TTTTTCCTTT CCCATCTCTA TTCCTTTTAC ACTTCCTTTT
103751 CTTGTTTTTAC TTAATTTGGT AGGACTTTCA GTATAATGTT GAAAAAAT
103801 GATTAGAGGG GACATTTTTT CCTTGTTTCT GATATCAGCA GAAAAACTTC
103851 AGGGTTCTCA TTGTAAAGTG TGATGTTAGC TGTAGGTTTG TTATAAATAT
103901 TCCTGTTTCT AGTTTATCAG AGTTATTGTC ATGAATGGGT ATTGATTTT

```

FIGURE 3, page 33 of 141

```

103951 GTCAATTGCT TTTTCTGCAT CTATTGATTT TTTCATGTGA TTTTCTTCT
104001 TTATTCTGTT GATGTGATGG ATACATTAAT TGACTTTCAA GTGTTAAAGC
104051 AGCCTTGCAT ACCTAGTATA AATCCCACTT GGTGTGGTG TATAATTCTC
104101 CTGACACAAT GTTGGATATA TATATGTATA TTTTGGAC AACATCTCGC
104151 TCTGTACCCC AGGCTGGAGT GCAGTGGGGT GATCTCAGCT CACTGCTACC
104201 TCTGTCTCCC GGGTTCAAGC GATTCTCCTG CCACAGCCTC ACAAGTAGCT
104251 GGGATTACAG GCCCCTGCCA CCATGCCCAG CTAACCTTTG TATTTTTAGT
104301 AGAGATGGAG TTTCACCGTG TTGGCCAGGC TGGTGTGCGA CTCCTGACCC
104351 CAGGTGATCC ACCCACCTCG GCTTCCCAA GTGCTTGGAC CACAGGAATG
104401 AGCTGCCACG CCTGGCCTAC AATGTTGGAT TTGATTTGCT AATATTTTCA
104451 TGAGGATTTT TTCATCTACA TTTATCAGAG ATACTGGTTT TTAGTTTTCT
104501 TTTCTTGTA TGTCTTTGTT TGGTTTTAAT GTTAGGATGA TGCTGACATC
104551 TTTAAATGAG TTAGGGAGTA TTTCTCTGCT TTTTATTTTC TGAAAGAGAT
104601 TATAGATATT TGGTGCAATT TCTTCCTTAA ATATTTGGTA GAATTCGCCA
104651 GTGAACCCAT CTGGGCCCAG TGTTTTTTAT TTGGAACCTT ACTAATTATT
104701 GATTGAATGT ATTTACTGAA GATGGGCCTA TTTGATTGTC TACTTCTTGT
104751 ATGATTTTTG GCAGCTTGTG TCTTTGAAGG AATTGGTTCT TTTAATCTAG
104801 GTTATCAAAT TTGTGGTTAT AGATTGTTAA TAGTATTGCT TTTTTATTCT
104851 TTTAATGTCC ACGGAATCTG TAGTGACGCC CTCTCTTTCA TTTTGTATTT
104901 TAATAGTTTT TGTCTTCTAT CTTTTTATTT TACTTAGGCT GGCTAGAGGC
104951 TAGTTGATTT TATTGATCTT TTCAAAGAAC CAGTTTTTAT TTTGTTGATA
105001 TTCTCTATTG GTTCTTGTGTT TTTCAATTTA TTATTTCTGC TGTAATATTT
105051 CTCTCTACTT TTGGTTTAA TTTGCTTTCT TTTCTAGTTT TCTATGGTGG
105101 AAGCTTAGAT AACTGATTTT AGATCTTTCT TTTTTTCTAA TATATATATT
105151 CAGTGCTGTA AATTTCCCTC TAAGCACTGC TTTTGCTATA TCACACAAAT
105201 TTTGATAAAG TGTGTTTTCA TTTTCATTTA GTTCAAAATA TTTTAAATTT
105251 TCTCTTGAGA TTTCTTCTTC ATTGTTTAGA AGTGTGTGGT TTTATATTCA
105301 CATATTTTGG GATTTTCCAG TTATCTTTCT GTTATTAATT TCTAGTTTGA
105351 TTCCATTTTG ATGTGAGAGC AGAAATGGTA TGATTTCTCT TCTTTCAAAT
105401 TTGTTAATGT TTTATGGCCT AGAATGACTT TCAGTTTCTT TTTGAATAAT
105451 TCGCAGGGAT TTTTTTTCAT TTTTATGTGA GCTCAACTGT GCATATATGA
105501 AGATATTTGT ATACTTTATT CGGCATTTTA GTTTTTTTAT GCAAAGATTT
105551 TCAAGTTTTT TAGTTCTTTA TAATTCCTATA AAATAAAGGT CTTAACTGAC
105601 ATAATTTACA TTAGTGACTT ATAGTCAGAT TTAATAAATG TTACCTATTC
105651 TTTAAATATCA TCAACAACGT TATTATTTTC ACAAGTATAT AAAACTTGGA
105701 CATTTGGGTA ATAATAGATT ACAAAGTGGT CTATCAATTG AGGATATGGT
105751 TACTGGATAT AGTACTATGT AGATTATGCT ACAAACCAT AATAAATAT
105801 AGCCTATTGA AATAGTTGAA AGCATATCAC CGTCTCTCAA ACTACATGTT
105851 CCCCCAACCT TAAAATCTTT ATTTTAAAC TTTTGTTC TCAGGGAAC
105901 TGGAAAGTAT TGTGGCTTTG TAGCTTTTAA ACATTGAAAG ATATATCTAT
105951 GGGAGTATAT ATTTATGTGT AAATCATGTG CAACAACATA TATTATTTAC
106001 ATGGGGATTT AAAAAATGTTA TATTCTGCAT GAAGTTGTAT ATCTTTTTTG
106051 CCTTTTGTAG GAGGATACTT CATCGAGACT TAAAGTCAAA GAATGTATTT
106101 CTGAAAAATA ATCTCCTTAA AATTGGTAAG ATTTTAAAAA GTATGAATTC
106151 CAAAAACGCA GAACAGTATA TTCTAGATAT TATCATATCA AATTGAAGTA
106201 AATGGTACGT GGAAGTATTA GAGTAATCAT TGGTTTGT TTAAATTCTCA
106251 AATTTTTAAG TACATGTGCT GCTGAAATGA AACTAAAT TCTCAGGTTT
106301 CTAGATGGGC CCAACAAAAC CTAATTGTTT TGTTTCTGAG TATCTGATAT
106351 AAATTGAGGT GTACAAATTT ACCACATATT TGATAGATTT TTCAAATATA
106401 CTTTGAGTTC CCTGTTTCAT GCCAGGCACT TTACAAGTTA TTAGAATCAT
106451 TTTACTGGTT TGATTAGTTA CTACAGGTTT CTCATTTATA TTATTTTCATC
106501 ACAAGCAATA AGTGGTTATA GATAATGAAA ATGTTGATAT AATGGCTTTA
106551 TTAACCTTTA GTTCTTCAGA ACTGTACCTC TCCTCATAAC AGCTACTGGA
106601 TCATCTAATC ATCATATAGG GTGTACTTGG GGAAGGAAGG AAGGAAGGAA
106651 TAAAAGTGTG CAACTAGTTA GGCAAGTATT AAAAAGCTGA TAGATTCAAA
106701 TTTTATAGT CATGTTCTTA AATAGTCTCA GATCTTTTCT TTTAAACGCT
106751 CCATTATTGT AAATTTAAGA ACAAATTCTT CTCCCTCAG GTGAAATTTG
106801 ATATCATCTT ATTCAGTTT TCCAAATCA TTCTGTTTGC CATTTATCAG
106851 ACTTGAAATA GCTTTTTATA TCAAATTGTC TAGTTTCCCA TAATTCCAGA
106901 AATAAAGAAT TTTAGCTTAC ATAATTCACT TTCCTGGCTC AAAGTCTTCC
106951 TTCTCCTATA AAACTTATGT TTTTAAACT ATTTACCAGC GTTGATATAAT
107001 TTAAGATATA TTAATTTTCT TTCCTGTAA AATGCTATGA ACCAATGCAAT
107051 AATAAAATGG TCAAATTAGG CACTCATTTCA GTTGTTAATT TCCAGGGCTA

```

FIGURE 3, page 34 of 141

107101	ATTTTTCGTT	GGCTTAAAGT	ATTCAATAAA	ATTAATTATT	ATTTCAAGGA
107151	GATTTTGGAG	TTTCTCGACT	TCTAATGGGA	TCCTGTGACC	TGGCCACAAC
107201	TTTAACTGGA	ACTCCCCATT	ATATGAGTCC	TGAGGCTCTG	AAACACCAAG
107251	GCTATGACAC	AAAGTCGGAC	ATCTGGTGAG	TGGGCTAGTG	GGCTAGACTC
107301	TTTCATCTGCT	TCCCTAAAAG	AATGGTACAT	TTTGTCTTTC	AGCTCATTTA
107351	CTTACTGCGAT	ACCTTCACTT	TATGCCCTTT	ACATGAATAT	TTCTGTGACC
107401	AGAGTAAAAG	AAGGTCTTTT	GCATTTAGAA	CTCAATATAT	TTCATTAAAC
107451	TAGTTTCAAA	AATTCTTTTT	ATTCAGTGAT	AATTGGTTGG	TTTTGGATTT
107501	TTGGTTCCTG	AATCACAAGG	GAAAGTTCTT	AATGTACCAT	AAGCATTAAG
107551	TTTTAATACA	TTTCTGTAA	CCTATTAAT	AAAGTATCTG	TAACCCTAAG
107601	TACTGTGCTT	ATTTCTATTT	AAGGTTAACT	TCAATCTTTG	TGGGGAATAG
107651	ACAGCTTTTT	TATATTTTT	TCTTTTTGTT	ACTTTTAAGA	ATTTTACTAA
107701	AGATATTGGC	TTTAAGGATA	AACATTTTTT	TTTTTTTTGA	AATGGAGTCT
107751	TGCTCTGTTG	CCCAGGCTGG	AGTGCAGTGG	TGTGATCTCA	GCTCACTGCA
107801	ACCTCCACCT	CTTGGGTCCA	AGCGATTCTC	CTGCCTCAGC	CTCCCTAGTA
107851	GCTGGGACTA	CAGGCTCCCA	CCACCACGCC	TGGCTAATTT	TTTGTATTTT
107901	TAGTAGGGAC	GGGTTTCACT	TGTTAGCCCG	GAATGGTCTC	AATCTCCTGA
107951	CCTCATGATC	TGCGTCGCTC	AGCTCCCAA	AGTGTCTGGA	TTACAGGTTG
108001	GAGCCACCGC	GCCCAGACTA	GGATAAACTA	AATTTTAAAA	TTTCTGGATT
108051	TTCAGTGACA	GATGCATCTG	AGATGTCTCA	GTTTCTCTGA	GCTCTTATAT
108101	TAAAGGAATT	TCTCCTTCCT	TGTTATGGAA	CTAAGTGAAA	TCTCACTGCA
108151	GAAGCCATGT	GGAAAATTGT	ATTCAGTATG	TTCTAGTSTA	AGCAATAGAT
108201	CCTATTTCTT	TTTCTTAGAA	GAGGAATCTT	ATTATATACT	TTTCTGCTTG
108251	TTGAGGGTTG	AAAGAACAAT	CTAGCTGAGG	GCTTGTTAAT	TAAGTAAATA
108301	ATTACTGTAT	GCAATCAAC	ATAAATAGTT	CTGAGCTTTC	AAAGACAAGC
108351	AGTGTAAGAG	ATGTGCTTAC	TTCACTCTTC	TAAAGAAGAC	AAAGTAGAAA
108401	ATTACATTTT	CTCTGGTTAG	GGAAAAAGTA	ATCACAACAG	GGGATATTGC
108451	TTAGGATTTT	CACAAGGGTC	ATTATCTGTT	CCTTGTCTCT	GTGCCATACCA
108501	AATGGGAGAG	AACATTTGCA	AGATTAGGTC	TGGGTATGGC	AATTCCTCAT
108551	GAATCCCGTC	CTTTCAATTC	AGTCTTGCAA	TTGTTCATTT	CTAAATTATT
108601	CACGTGTTTT	TTTCATCATT	GGCTTACTTC	TGCCCTGGAG	GTCTTTTCCA
108651	ATTCACCTAT	CATCTTCTGT	CTTCTTTCCT	TCTAACCCCC	TTAACTACCA
108701	CATCCAAAAG	AAAAAGAAAA	CCCCAAACCA	ATAAAACCAA	ACATCAACAA
108751	GGATGTATAG	GAGGAATAAC	TAATGAGTTC	CTTTAAATTT	TGCTTTCATT
108801	AACATCTACT	ATTTGCCCAA	GACTGTGTAA	CATTCTTTAG	GTATAAAGCA
108851	AAAGTGATAG	GATTCCCTACC	TATCAAGAGA	AATCTTGCTT	CTTTTGGAGT
108901	CCCTTTCTCT	AGTTTGAGAA	ATCAATTTTG	GGCTTTGCTT	CAGATCGAAT
108951	TTCAATTATA	TACCTATATA	TCCTTTTACA	TTTAATTTTA	AAAATTAAAT
109001	TTATGGACAT	TTTAAATAG	ATTCAAATAT	ATATCTTTAT	AGTTTAAAGT
109051	TATATGGTAT	CTCAAGAAGA	TGTTATGTTA	TGCCATCTGA	ATTAGAGATA
109101	AATTAATTTA	CAAAGCCTAT	CATTTAAGTT	TTTGAATTA	TATGTAACAA
109151	ACCTGGCTCC	TTTTGACAGG	CAGCTATATC	TGCTTTCCAG	ATCAGATGAA
109201	TATCTCCTAG	AAAACAAAAG	CAACAGAACC	CACAGAGAGG	AAAGGAAAGC
109251	ATAGAGTATT	TGTCTCAGTT	ATGTCAGTGT	TATTTCTTTT	TAAAAAATTG
109301	CTCCTACTAT	TACATGGAGT	ATTATGGGAT	ATCAGATAGT	ATTGCTATAC
109351	TTTAGGATTA	CAAAACGTGC	TGACTCAAGA	AAAAAAAAC	AGCCAAAACC
109401	TCCAAAATAT	ACAAAGCAGA	AGGATTTTAA	TGTGTTTCTC	TGAGCATTAG
109451	GTTAGCTCTC	CTTGACAGAG	TTAACTTTTC	AGCAAGTACA	AGCTTAGGAT
109501	TCATCATCAT	CCTGACCCTA	AATAACCACC	TTATTATGGA	TTTAGTAAAT
109551	ACCTTGTTTG	TATCAGAATC	AAAGTGGGCT	TATCTGGTAA	TGAAATTTCT
109601	ATTGCCAAAC	CTAAATTTGA	AATAATAAGA	GAGAACTATT	AATTATAGTG
109651	TCAGATACAT	ACGTGTGATG	AGTAACTTTT	AGTAGACACT	CTGAGAAAAA
109701	TTAGATTGAA	TGAGGTTGAG	AACCTGTCTC	TGAATCTCAG	TGTGTAGCAT
109751	CTGTTTATTG	TGGAATTTTT	TTTTAGGATT	AGAAACACTT	ATGAATAATT
109801	GACAGGTGTT	TTGTTTTAGC	ACTAATAGCT	GTACATATTA	TATTTATAAT
109851	GCTTAAAGGA	GAATTTGCTT	AAAGGAGAAT	TGGCCTAATA	CTAGTTATGT
109901	TTTCATCTGT	AATGTTTGCC	CATATGTAAC	ATTATCTTCA	TTCTGCAATG
109951	TGTTAAACTT	TTCTGGCTTC	ATTTATTTAT	AGCATTACAGT	ACAGGAAGTC
110001	CTTCTCCTAA	AAGTGGGTTA	GGTTCCAAAA	GTTTATAAAG	TTATTTGCAA
110051	AGTTAGGATA	ATTAGGTTTA	CTGAGAACAA	TGCTTTGATC	ACAGCTGATT
110101	TGTATAAGCA	ATTTCTTGAAT	ACTCTTATAC	CCACAGGAGA	AATACAAAAT
110151	TGAGTTGGGT	TTCTAGGCCA	GCTCATTTAA	TTGATTTAAA	CTATGAATAT
110201	TTAGAGTATG	TTATTTTGTT	AGGAGAAACA	AATAAAGGAC	AATATATTTT

FIGURE 3, page 35 of 141

```

110251 GAATAATGGT ACTGCAATTA GACAGAAAGA AAACAATATT TCACTGTTGG
110301 TCTTATTTAC TTTGTTGTGA GAACCCAACC AGATGGCTCT TTGATCTTGT
110351 AGCCCCCATA TTCTTTGGGT GATATAAGTA AAGGGAACAG TGGTGGGAAT
110401 AGTGGCAACA TCTAGAGTGT ACTGTGAAGC TCTCAGGGTC TTTCTCAGAA
110451 ATTTGGTGTG GAGGTTAGTT GGGTGGGGGA CAGAGAAGGA ATCTAGTTCA
110501 TGCCCAACAT TGGACTCAGG CTTTCATGAT CTTGGGGCAG AAGTGTCTATG
110551 CAAGGATTAG CTGTGAGTAG AAGAAAACAG AGAAGAACCA GCACCTGCCT
110601 GACCTGCCAG GACCAAGAAA GTATCCTCAT GGAAGAACAT TTCCAGGGTG
110651 GACAGGGAAG GGATGGGGAC AACAGCCTAT TTTTTTGAGA AATACAGTCC
110701 AACTTGCCAG CATTTCCTGT AACTAAAATG AGGCCATCTA GTAGCTGGCA
110751 GCCAGCAGCT TCATCAGCTC CCTCCTGGTG AAGAAAGCTC TGGAGCAAAA
110801 GAATTAATTT TTTTCACTTG CCCATGGCCT GGAAGTTCT TATGTGGGT
110851 CAGAAGAAAG CTATTGACCA GGGAGTGCTT TCCTAGGGAA TAAGCACTGG
110901 TGTCAGTATT TTCATCCAAT GGAAGCTTAG GTGAGAAAAC ATTTCACTCA
110951 GGTGAAGTAT ATTTGAACAT TAATATATTT TTTTCAATGA CTAGCATGAA
111001 ATGGTTGATA CAACTCTGC AGATAGTACT AATTGGCCT GATGAATTTT
111051 AAAAGGGTTA ATAACATAGC TAATAAATCC TTGTTAAATT GATATTGATG
111101 GAGGAGGGGC AGTGCAAGAT GGCTGAATAA GGGCCCCACT GATCATGCCC
111151 CTCCCCAGGA ACACCAGGTT TTAAAAAAAT TTAAATTTT AATTCTGTG
111201 GGTACACAGT AGATGTATAT ATTTATGGGG TACATGAAAT ATTTTGATAT
111251 AGGCATGCAA TTCATAATAA TCACATCATG GAAATGTGG TATCCTTCTC
111301 CTCCAGCATT TATCCTTTGA GGAAGACCAA GTTTTACAAC TGTCTACACA
111351 AAGGAACCCAC CTTCATAAGA ACCAAAAACC AGGTACCAGC TCAGCCACAG
111401 TGGTGTAGAG GACCAAGTGA GATCTTGGAG TCCCTGATTT CATGTCTTAG
111451 CTCTTGATA GCATTGCTGG ACCTTCCCTG GGCCAGAGGG GAACCCACTG
111501 CCCTGAGGGG TGAGTTCAG GCCTGGTGGT ATTACACACA AGCTGAAGGA
111551 AGAGTCCTTA GGCCTTAATT GAGCATCAGT GGTAGCCTGG GAATGTTCCC
111601 TGTAGGCCCTG TAGTGGTGGT GGCCATGGGG TGAAGCTCCT CTGCACATAG
111651 GAAGGGGAGG AAAGAGTGGG AAGGACTGTG TCATGTGACT TGAGTGCCAG
111701 CACAGGCCACA GGTAGAATAT AACACCATGC AGATTTCTAA GGTTTTTAAC
111751 TCTAGTCCCT GGCTCTGGGA GAGCATCTCT GGACCTGCCC AGGACCTAGG
111801 AAACCTACAC CTCTCAAGGG AAGGACACAA ACCTGGCTGG CTTTCATCATC
111851 TGCTGCTTGT AGAGCTCCAG GGCCTTGAGT GAACATAGGT AATAGGAAGT
111901 AGTTATGGGG GCCTTGGACG AGACCTGGTG CCACTACAGT CCCAGTAGTG
111951 GTGACCAAAG GAGTGCTTGT GTCACCCAC CCCAGTTCC AGGCAACTTA
112001 ATACAGAGAC CCCATTTGTT TGGGAGAAAG TAAGGGAAGA GAACAAGAGT
112051 CTTTGCCTTG TAATCCAAAG AATTATTCTG CATGTTATCT AAGACCACCA
112101 AGGTGGTACC TCTACAAGTC TGTAAGAACT ACAGTGTTAC TGGGCTTGGG
112151 GTGGCCCCAA TGCAGATGTA GCTTAGATCA CAACACCCAA GTATTTTCAA
112201 ATACCTGGAA AGCCTTCCCA AGGAGGATGG GTACAAACAA GCCCAGATGG
112251 TGAATACTAC AATAAATACC TAACTCTTCA ATGCCAGGC ACTGATGAAC
112301 ATTCACAAGT GTCAAGACCA ACCAGGAAAA CATGACTTTA CCTAACAAAC
112351 TAAATAAGGC ACTAGGGACC AATCCTGGAG AAACAGAGAA ATGCAACCTT
112401 TCAGACAGAG AATTCATAAT AGCTGTTTTG AAGAACTCA ACAAATTTCA
112451 AGATAACACA GAGAAGGAAT TCAGATTTAT ATCAGATAAA TTTAACAAAG
112501 AGAGTGAAAT AATTA AAAAG AATCAAGCAG AAGTTCTGGA CTTGAGAAAT
112551 CCAATTGACT GGAGAATGCA TCAGAGTCTC TTAATAGCAG AATTGATCAA
112601 GTAGAAGAAA GAATTAGTAA GCTCGAAGAC AGGATATTGG AAAATACACA
112651 GTCAGAGGAG ATAAGAGAAA AAAGAAAAAA AAAAAAAAAA GAATGGAGCA
112701 CACCTCCAAG ATCTGGAAG TAGCCTCAA AGGCAAGTCT AAGAGTTATT
112751 GGCCTTAAAG AGGAAGTGG GAAACAAATA GGAGTAAGAA GTTTATTAAA
112801 AGGAATAGTA ACAGAGAACT TCCTGAATCT AGAAAAAGAT ATTAATATAT
112851 AAGTATAAGA AGGTTATAGA AGACCAAACA GATTTAACTC ATTAATAAAT
112901 GATGTGGCAA ATTCATATAC TCCTGTTTTG TTAATTCTGT GGGAGAGCAG
112951 GAGAAGGGAG GGTTAGTTCA GGATTTCTT TCATTCTCT TACTAAAGAA
113001 AAATTTAGTT GTGTTAACAA GTTCTTATTT CAAACACGCA AATTTATTTG
113051 GCAAGTATTA AATCTTATCA CCACACTTCA TTGTTTACAT TGCTTTTAA
113101 ATTTGTTTTA AGTCTTGGAA TCCCTAGTTG AGACTAGTCT TTCTATAGGA
113151 AGTCAAATTG GGATTGAATC TTTCAAATTC CAGGATTGGG CACTTTGTAG
113201 CGAGGAGCAT CAGGGGCGAG GAAAGAGTGT GGCCATGAGA GCCTGGGCAG
113251 GGCTTGGGTT TCTGATGAAG GAGACCCCTT TGGATAGGAG CATAAGGTAA
113301 AATGTCCCAT GATCCATAGG GGCATGTGGC AGATTGTATT TTCCAAAAAT
113351 GGCCATCATA ACATATCACT TCTCACATGT TCTTTTCTCA CATGTTCTTT

```

FIGURE 3, page 36 of 141

```

113401 TTATAATGTG ATGTTGACAC ACTCTTACTG AGAGGTGGGG TCTGTGTTCC
113451 CTCACCTTTA ATTTGGGTAA GCCTGTGATT ATGGCAAAAT TGATGCTATG
113501 TGACTTCTGA ATCTAGGTAA TAAAAGCAAT ATAGATTTTG CTGGGTTCTC
113551 TTGAAATTCT TGTTCCTGGA ACCCAACTAC CCTGTGTGTA GGAAGCCTGA
113601 GTGGCAGATT GAGAGACCAA CATGGAGAGG GCCACATTGA GAGGAACCAA
113651 GGCCTTGGT CTTTACTCCC ATTGAGCTTC CAGCTGATAG CCAGCATCAG
113701 TTGGCCAGTG ATGTGCGTGA GCCATTTTGG AAGTGGATCC TTAAGCCTCA
113751 GTTGAGCATC ACCAGCAGAT GCTGTGGGGA GCAGGTTCAA GGCTTCCCTG
113801 TCAATCTCTG ACCAAAAAGA TTCATGATCA AAATGACTGA TTATTGTTGT
113851 TTTAAGGTAC TAAGGTTTGG GGTGGTTTTT TATGCAGCAG TGGTGACTGG
113901 AGCAGGACTT CATCAGGAGA ACGGCAAGCA GGAGTTGAGA AGTAGCCTCT
113951 AATCTAGGCC TCCATATGAC AATCTGGCAG TGTTTGTTTT CTTTATGTCA
114001 AAAGGCTCAA TAAATTGCTT AAGAGAAGTG GCTTGTGCCA GAAAAGCAAT
114051 CTGGCACTCT ACTTGCTGGT CTGTTTGATG GGTAGAACCC AAGAACCTGG
114101 ACCACAGCTG AGAACTTCCA GACCAGCAAC TTTTCCATGT GCCTCAGAAC
114151 TCTTCTTTCA TTCCTCCTGA CTTTGCCTTC TTTCTCCCAA CCCCCACCTC
114201 AACGTCACCC CTAGCACTGG ACCATCTGAC TCCAGCCTTA TCTTTCTATC
114251 ATTCCCATGA TTCAGTGGTA TGCTGGAGCT CATACCAGCT CATAAGACCC
114301 AATTATCCAC ATTTCTTCTC AAGTCAATGT TCACTGATGT CACATTAGTA
114351 ACTTGAAAAC AACCATGGTA TTTATACCAT GGAAATTTGT AAATTAGGGC
114401 TTCTCCTCCT ACCTCAGAAA GGCAGTGTAC CAGAATAGCT CATACCTTTA
114451 GCCTTACTCC TTCTTGCCCC TAGGGTGGTA TTTGCAGAA GGAAGAGACG
114501 TGAAGACATG AAGGTTTCTG TCCTCAAAGG AATGATAAAC ATATAAACAA
114551 ACTGCTGTAT ACTGTTATAG TGCAATACAT ATTTCTGATG ATAAAGCAGA
114601 GAGTGATTGA CAGCTGGGGA TAGGGGTAGA GAGCATCAGC TACAGTCTTA
114651 GAGAGTGCAT GATTCTTGCT CAGGATGGGG AAAAATGGAG AAGAGTTTGG
114701 CAAATGTATT TCAGGTAAAA AGACCCAATG TCAATGACCA AAAGTGAGGG
114751 GTGCCCCTG GGAGAAGAGG GAGGGAAGTG TGCAGGAAA GAAAGTGGCT
114801 TGGCCAGAAGA ACCATTGGC CAGGGCCTTC TCATTCTATG AGGGCCTCAA
114851 ATGTATGTGT TTAATAATTAT TTCCAAATGA GGTGGTATAT GTTAAAGGTG
114901 TTTATTTAAT GCCAAAATTT CAGATATATC ACCAATTTTG AAACCTTTAT
114951 TGGGGTATTT ATTTGTTTCAT TTAAATATA TACTGGGAAT TTAAAAATAG
115001 TTACAAATGA CTTGACCTT CTCTGACTAC TGAAGACTC TGAGAAATGG
115051 TATGAAAGGA CATGGAAGCA TGAGAAAGCT CAGGTTCTTC TGATTAGCTG
115101 TAGGACAAAG TGTGTATGTG GCAAGGAGGG GAGTGTGGT ACATTGACT
115151 GAAGGGCGGG CAGGGGTCAG ATGGTGAATG ACCCATGTAA TTATGAAAAG
115201 AAGCTTGTA TTTTCATCTC TGGAGTATGA GAAACTGCTA AAGGCTGTTA
115251 AGCAGAGGAA TGATGTATCA GTCAGCTTGG CTGCGGTAAC AAAGAACTCC
115301 AAAAAATCTC AGGTACTTCA TATATTGATT CTTTGCTTA CCTGAGGACT
115351 ACAGATTAAC TGAGTTTCTG CTCCAGTTGC AGTCTGCTC TGATCCATAG
115401 TTTTCCCAGT TCCAGGACAC AGGTTATGCT CTGAAAAACA TGGACAATAC
115451 AGTGCTAGAG AGAAAGAGCA TGTGTCTGCC TTTAGATCCT CCACTCAGTT
115501 AGTTGTGACA CACTTCATAT CCACCCATAT TCCACTGGCT GAAGCAAGTC
115551 CTGTGCCAAT TCCCCTGTG GGGGAAGGGA AAAAGAATAT TCGCAAAGAG
115601 CAATCAATCT ACCAGGGGAG TCAGTCTTAT TATGATGCCA GCTGGGCTAT
115651 AGAAAAGTGA CAGGAGGGAG AAGATTGGTG GAGACTAAAG GAGGGAGATA
115701 GGTAGGTCTT CTATTAACCT GGCACATTCT ACTACTTTTG ATGTTCTGTC
115751 CATCATAAAA GAGCCTCTGG AGATCATATA AAATTATTAA AGCAGTTGGA
115801 ACACAGCCAT TCAGTCAAAA TGTGAAGCAG TTCATGCCCC ATAAGCAGTG
115851 TCGGCTGTTG CCATATTCCG TCTTAATAGA GTGGCTGAGT AAATAACAGT
115901 TGGTTATGTA AGGATGCTTT GATCATTGTT TCCATTGCCA ACCTACCTCC
115951 CTATCCCAAT TCCAAACATC CTTTCTTAAG CTGTATGTT TGCATAAAAT
116001 CTATAACTGT GACCTTAAGA ATAGCTAAAG ATGCAAAGAA GCTTTGACTT
116051 TTAGCCAGTT TTTCTCTTCT GCCACCCTGT GGTCTCCTTG TTCTCCTCAC
116101 TCACTGGTTT TGATCTTTTT CCTCCATTAG CCACATCTT ATGGTATGGA
116151 GGACATGGGA CCACTACAGA GGAGAGAGCT TTGATAATCT TCCTTGAAAC
116201 ATTGTAAAGT TCAGTTGTGG AGGAAAGTAA TTAGAAAAGAG CTGGTATGAA
116251 CAGGAGAAAA TTCACCCAAA CCTTGTTTTG TCAATAATT TATGGGTCGT
116301 ATTCCCTAAA ATGTGACAGT ATATTAGAAT ATGATAAGAG AAATGAGTTC
116351 ACTTTTCTTT TTAAATATTC TTTAAAAAAT TCAGCTCATC AGTCACACTA
116401 GCCACATTTT CAGTGCTCAA AAGCCAAATG TGGCTGGTGG CTATTGTTTG
116451 TAGAAATAAG AACATTTCTA TGAGTTCAAT AAATTCTTTT GGACAGCCCT
116501 GAACTATTTT GCTCCAGCTG CTTTAAGCCT TATCTTGGGA TTTCTTGCAT

```

FIGURE 3, page 37 of 141


```

116551 TCACCCTGCT TTTGGATTGG GCAGAACCCC TGCTGGGTTT AATTGCTATG
116601 CTTAGATTGG TCCACTTTAG ATAGTTTGAG GTTCTTCTGT TCTCATGTCC
116651 CTTGATCACT CCATTGCTTC CCTCTGCTTC TTCTCACACA GATGCTGATA
116701 CTATGCCAGT CAAGTAGCTG TGTGGTTTGT GTTCCTTCAC TTGCACAGCA
116751 AGGTTCAAGG GGACACCTTA TAACTTGGCT TTATAATAAA TTATTATTAA
116801 ATTATAATAA ATATTATTCA TGAGTTTGA GTTTTGTCT GTAGCTGCTC
116851 TGTTTTTATA TGTGGATTCA AGAAAGATCT AAAAATATG CTTCCACTGT
116901 ATCTACTGTT TCCCCCAA TGCTCGGAAT CAGCATTTTA ACAAACCCC
116951 TAAGTGATTT ACATATATGT TAAAGTTTGG GAAACACTGA TAGAGGTTTT
117001 GAGATAAGGT AGGTCATTCA TAAAAAATG CTATATAATA TTGTTCCCTTA
117051 AGTACTATTA TTCAAGCAG CCAATGTTT TTCATTATAT TTATTTTCAT
117101 TTCATTATAT TTAGACTGAA TTAGGTTAA TACTCAATTC TACCTAAGTA
117151 AAGACTTTCA TTTAGGGTGA TACACACTAA AGCAAAACCC ACTACTCTTT
117201 TATTACATTT CCATTACTGT TTCCATAGAT TGAAGTATT CCTCTTTTCT
117251 AGATGAATAT ATCAGGATGC TCTTCAATTA CATCAAATA AAACATTATC
117301 TAGAAGATCA ACAAACCTTC CTAACCAACT AGAGTCATGC ATTGCTCTGG
117351 GGCAGGCATC TGGTTGCAGA GTCTGGCAGA TTTTGAAGGG TAAATTTAGT
117401 TACCTTAAGA CAAGCAAAGT CTGAGTTACA TTTGTGATTT ATTATCAATC
117451 AACCTGTGCT TCAGAAATTT TCTCAGTAGT TCCGGACAAG TTGTTCAATT
117501 TGGACAGATG GCAAGTTTAT GGAGTTCAGG TGTAATTGTC TTCACAGACA
117551 CCTGATCCCA GCCTTCTTTT TCATTGCTTG TATTCATACT CCCTCAGGGA
117601 TTTATTTGCT TATCTCTTCA CAGTTGTCTG TATTTTGGA AAAGAAAGAA
117651 ATGCAAAATTA TAGACTTCTA AGTAAATAC ACATCTCACT TGTTATTTTC
117701 AGCTCTCCCC CACCCCAAT CTGCTTTTGT ATCAGCAGAT TTAAGACCTG
117751 GGAGTCAAAT AAGGAAAAT TATTTTAAAA GGATGGAAGT GAAGAGTTTT
117801 AGATGATGCC TATATGGAAA TGTCTGGTTG GAAACTAGAA AAAAGAAACA
117851 CTGGTACATA GAAATATAGT CACCATATGT ATTTTGGTTA CCTACCGTAT
117901 GTATTTAACA AAACCTCTAA GTGATTTGCA TGCATGTAA AGTTTGGGAA
117951 ACACTGACAG TGGTCTGAG ATATGGTAGG TAACCAAACA TCTTTTACCT
118001 TTGAATATCT AGGTAGTTTC TGTAATCAGA TTGTCCAAGT TTCAGTTACT
118051 GGCGCCATT CCAGGTAGGT GCACTGGGAC CACTATAGCA GGTCCGTTTC
118101 CACAAGTTAC TGGCTGATAA ATGAAGTCTT CTCTATGTGC TAGAGTGCAA
118151 GCAAATACTA GTCATCAAAG TGAAACAGGT AATTGCACTG CATACTACAG
118201 TGTAGCTGAG AGGATTTCCA AAACAGAGAG TACTGTAGTC TTATATGAGA
118251 ATTAATGAT TACTAAGTTA GGCTATGAAT CTAATTGTTC CATAGTTTCT
118301 TTAGCCAGAT AATTGCATAT CTTTTTTATT TTTATTTATT TTTAGAGATG
118351 GTCTCACTCT GTTGCCTAGG CTGGAGTGCA GTTGTACAAT CATAGCTCAC
118401 TGTAACCTCA AACTCCTGAG CTCAAGTGAT CCTCCCACTC CAGCCTCTGG
118451 AGTAGCTAGG AATACAGGTG TGGGCCACCA TGCCCAGTTA ATATATTTTT
118501 ATTTTTTGTA GAGATGCAGT CTGTCTATGT TGCCCAGGCT GGTCTTAAAC
118551 TCCTGGCCTC AACCATTGTC CCACCATAGC CTCCCAGTC ACTGAGATTA
118601 CAGGTGTGAG CCACTGTGCC TGGCCTACCA CATCTTTTAA TAACCTTAAT
118651 AAATTCATCA AAGTAGAGTT ATATCTCCAT CAAACCAGAA TGGTGATCAA
118701 TTAAGTGTTA ATAGACCACT AAGCCCTCTT TCCTTCCAAG CAATGAAAAG
118751 ACAAAGCCCA AACTTGTCTG CCTTCCTTTT TCCATAGAAG GTCTCATAGT
118801 CTGTGTGCCC TATATTTGCC GTGGTGTGAC GCCCTGCATA GCTTGTGTC
118851 TAAGGCCCCA GTGATTTTTA AAAGTGAATT AAGGTTCTAT ATAGAACCTG
118901 AAATTACCTT GGGAAATCAG CCCCTGCTTA AAAGGCTCTG TCAGGGCTAG
118951 CCCTGATTTT CAACTCAAGA GAGACTTTCG TGATCCAAAA TGCTCTGATT
119001 GGTGCAAGAT CCAGAGGCAG GATAGCATAG AGAGTCTGTG TCTCTAGAGC
119051 CAGATAGCCT GGGCTACAAT CCCAGCTTTA TGACCTACTC AGTATGGAAC
119101 CTTGAACAAT TTACCTAATC TTATGGTTT CTCACTGAA AAATGGGAAT
119151 AATAATAGTT CCTACCTCAT TAGGATTGTT GTGAGTGTA GTTAATGAGT
119201 TAAAATATGA AAGGAACATA GAAGAGGGCC TGGCTCATAG TAAACACTAT
119251 TAACATTCCA GCTATCATTT TCATTATTAT TATTATAATT ATCATTATTG
119301 TTGTTACCAT TTGTGTTATT GATGGAGACA ATCTAATAGC TGCTTCCAAG
119351 ACACCTTAAA ATGTTCTGGA TCAGGGGTTG TTGCTCCCAA GGGTTGTTGT
119401 TACAGCCCTT CCATATAGCC CAGGCCAGGA GAGGTTGTCT AGCTTGTCTT
119451 GTTTCTAATC TTGTCTCAA GGAGACCCTA AGCCTATGTG GGGTGAGCAT
119501 AAATCATCAG AACAGAGTGT GTAGGTGCTG AGTGATTGCT AGCCTTCTGT
119551 TACTTGGACT TGCAAAATTT ATTTCTTTT TTCAGTTTTC AGATTATTAT
119601 GTGTGTGTTA GGCTACATAA CAGAATGTGA TCAATGTAAC TTTTAAAAG
119651 AGAAGTTTAA AAAAGTATTG GATGAGAACT AATACCAATA CCAACATGAG

```

FIGURE 3, page 38 of 141

```

119701 CTGATCTGAC ATGGTACCTT TCTGGGCAAA TTACTTCCTC TCTCTGAGCT
119751 TTGGTTTTCT CACTGATAAA ACCAGAGTTT GAAATGAGCA AATCTTTATA
119801 GTCTCTTGTA ACTCTACTAT TCTGTGTAAG AAGACATTCT TGAAGTTTGA
119851 ATTATAGATT CTCTGTGGG GAAATAACCA AGTATATTGT GGCAATTCAT
119901 AACATAAACA TTCTACATTA GTAAAAGTAT TTGGTTCAAC TTGATGATTA
119951 TATATTTTTA GTGATATTTA GCCCCTCTTG TTTTCCTAAG GAAACTTTTT
120001 TTTTCATAGT ATAACAAGTA CTGACTTGGT ATTGTCTGTC TTTTTCTTTT
120051 TAGCCATTCT GATGAGTGTG TAGCATGTAG TGGTAGTACA CAGTGGTTGT
120101 AATTCGCACT TTTCTGATGA CTAAAAATGT TGAGCGTCTT CTCATGACTT
120151 TTGGCCATTT AGCGTCCGTT CAAGTCTTTT GCCCATTTTT CTATTGGATT
120201 CTCTCATTTT TCTTATTGCT TTATAGAAGT TTTAATTAAT TTTATCCATA
120251 TTTTGGTAGT CTGATGAATA TTTGAATTGC AAATATCTTA CACTATGTGT
120301 CTTCTTTTTC ACTCTCCTAA TGGTGTCTTT TTATGAGTAG AAGTTTGTA
120351 TTTTAATGAA GTTCATTTTA TAAGTTCATA ACTTTATCAT TAGTGCCTTT
120401 TATGPTTAA GAAATCTTTG CCTACTCCAA GATCATGAAG ATATTCTCTT
120451 GTTTTCTTTT AAAACTCAGT TTTCTTCTCC TGTTTTCTTT TAAAGCTGAC
120501 TCAATTTTCA TCTGTCTTTC ACAGTAACAT CTATCTATAA TTGATCTGTG
120551 TGTGTATGTG ACTATATGGT ATGAGACAGG AATCCAAGTA CGTTTTTTTC
120601 TATATGAATA TTCAATTGGC CCAGCATAAT TTGTTGAAAA AGCCATATTT
120651 TCCTCTACCA TGCAGTGGTT TATTTTTGCA TTAATCAAGT GATTAAATAT
120701 GTGTGAATCT GTTTTTGAGC CCTCTATTTG ATTGCATTGG TGTATATTTT
120751 TTCTTCTTTG CCAATACCAC ACTTTCATAG GTAATATAAC TTTATAATAT
120801 AAGCTATATA ACTTTATAAT AAATCTTGAT ATTTGGTCAT ACAAACTTC
120851 CAAATTAGTT CTGTTTAAT TGCCGTGGCT ATTCAGGTTT CTTTGTATTT
120901 CCATATAAAT TTTAGAATCT GCTTTTCAGT TCCTGCCAAA ATGTCTGCTA
120951 GGATTTTGGT TGGTATTTCA TGGGCCTCTT TAAGTGTGTT TTTGTGCAAG
121001 TTTATAGAAA TAAAGGGCTT TGTATTCAGC AGTCTTGCGT AATTCCCTCG
121051 TTAATTCTAA CAGTTTGTCA GGTCTTTGGA TTTTTTCTG TACACAATCA
121101 TGTTGACATG ATTAATGACA GTCTAATGTT TTCTTTACTA ATCTTTATAG
121151 ATTTTTTTAA AAATTTACTT TTTCTGGCAT TATTGCTTTG GGAAGCACCT
121201 TCATTACAAT GTTGAATAGA AGTGATGATA GTAGGCATTC TTATTTTGTT
121251 CCTAATCTCA GAAGAAAATA ATAACTTTC AATATTTTAC CAATAAGCAT
121301 AATGTTTACT ATATATTTTT AAGCTTCAA AAATCAGATT AAGGAAGTTC
121351 CCTCCTATAT CTGGTGTGCT AGGAGTTTTT TTCTTTTTAA AAATATAATA
121401 AATTTTGAAT TTTATAGAAT GCTTTTTTTG CATCAGTTGA GATGGTGATA
121451 CAATTTTTTCA ACTTTTTTCT ATAATGAGAT ATATTTTGAT TGATTATTTT
121501 TCATATATTA AGTCAACTCT GTATTTCTGA AATAAAATCT ACATGGTCAT
121551 GATGTATTAT CTTTTTAATA TGTCTGATTC TATTTGCTAA TATGTGTGTG
121601 TAAATTTGGG TTATTTGAAT CAACGTTTCA GAAAACATTT GCTCGTAATT
121651 TTCCTTTCCC ATAATATCCT TGTATATTT TAGTATCAAA CTGTGCTGG
121701 TCTTACGAAA TGAAGAGGTT GAGTAAGATT ATTGTTATTT ATTTCTTAA
121751 TATTTGGAAG AATTTATCAG TAAAGCCATC TGGTCCTGGA GTTTTTCTTT
121801 GCAAGAGCTT TTTATTATTT TATTTTCTG TATTCACAA ATATCTATAT
121851 TGAGAAGATA AAGGTAGCCA CTGTTCTGTT GTTGTGCTGA AAATACATTG
121901 GTAGGCAAAA ACAAGCCAA ACAATACAG GGTCTTATA AGGATTGCTT
121951 TATAATATTT ACTTTTGAGA TAGAGGGTCA GGGGATACTT CTGTTGTCTA
122001 TCTCAGTTAT TATTATTTT AACTTTTATT TTAGGTTTCA GGGTACATGT
122051 GCAGGTTTGT TACAGATATA TATATATATA TATATAATAT GTCACAAGGG
122101 CTTGGTGTAC AGATTATGTC ATTACCTAGG TGTTAAGCAT AGTACAAAAT
122151 AGGTAGTTTT TTTTCATTAA AAATAAATTT TATGCATACA TAATAGTCGT
122201 ACGTATTTAT GGGGCACATG TGATATATTG ATACAAGCTT ACAATGCATA
122251 ATGATCAAAT CTAGGTATT GAGGTATTCA TTGCCTCAA CATTATCAT
122301 TTCTTTGTGT TGGGAACATT CCAAGTCTTC TAACTATTTT GAAATATATA
122351 ATAAATTATT GTTAACTATA TTTTTTGTGT TTAAACCTTT ATTTATTTGT
122401 TTGCTTATAG TTTGTTACAG CAACCGCCTT CTTTATTTTT ATTTTGTAGT
122451 TCCTCAACCT CCTCCTCTCC CTCTACCCTC AAGTAGGCCC CGGTGTTTGT
122501 TGTTCCTTTC TTTGCATTCA TGTGTAGTCA ATGTTTAGCT CCCACTTATA
122551 AGTGAGAAAA TGCAGTATTT GGTTTTCTGT TCCTCTGTTA GTTTGCCTCC
122601 AGGTTGATCC ATGTTGCTGC AAAGGACATG ATCTCATTCT TTTTATGGC
122651 TGCATAATAT TCCACAGTTT ATTTTCTTTA TCCAGTCTAC CGTTGATGGG
122701 CGTTGAGGTT GATTCCATGT CTTTGCTATT GTGAATAGTG CTACAATGAA
122751 CATATGCATG CATGTGCTT TATGGTAGAA CGATTTGTAT TCCTTTGGGT
122801 ATATATACCC AGTAATGGGA TTGCTGGGTC AAATGGTCAT TCTGCTTTGA

```

FIGURE 3, page 39 of 141

122851	GTTTTATTAT	CTTAAATAAG	AAATTATCTC	TGTTTAATAG	ATAAAAACTA
122901	TTCAGATTAT	CTTTTTCTTC	TTGTGTCGTA	AGTTGTGTTT	TTAAAAAGACT
122951	GTAACTTCA	TATTATCAAA	TTTATTGGAA	AAAACATGTT	TATAATGTCA
123001	TCTTAATACT	TTCTAATATC	TGTGGAATCT	ACAGTGTTGC	ACTTTTTTCT
123051	ATTTGTTATC	GTTAATCTGT	GTTTTTTTCT	GATTTTCTTG	ATCAGCCTTG
123101	CTAGAAATCT	ATTAAGTGT	TTAGCTTTCA	CTGATTTTGT	TTCTATTGTT
123151	TATTTCTATT	TCATTAAATTT	CTTCTCTTTT	AAAATTTATT	TCCTTAAACT
123201	TTCTTTGGTG	TGATTTGCTG	TTTTTTTAAAC	TTCTCAAAT	GACTTATACG
123251	GTAGATATTA	AGTTTTTTTTG	TAATATATGC	ATTTAATACT	TTTAATTTTA
123301	CTGTAAGCAC	CTTAACTGCA	TTCAATGTGT	TGATATTGG	TATCTTTATT
123351	AGCATTCCAT	TAAAAGTGT	TTCTAATTTT	TTGTTTGACC	TAAGGATTA
123401	TTAGATGTGT	ATTTCTTAGT	TTTCAAGCAG	TTGGCAATTT	TATAGTTTT
123451	CAATTATCTC	TTTTTCTCTG	TCTACTGTGT	ATTCATGTCT	AGCACAATTT
123501	TACTGTGGTC	TGACTTTGAA	GATTTCAGTC	CTTAAAAATCT	TGTGAGGCTT
123551	GCTTTATGGC	CCTGTATATT	GTCAATTTTG	GTAAATGTTT	CATGTGCCCT
123601	TGAAAAAATA	TTGAATTCTG	TTATGTTTGG	TTGCATTTAC	ATCAACTTGC
123651	CAATTATGTC	CATTTTGTCA	TCGTGTAGAT	TTTTTCTATC	TTTATTGATT
123701	TTTTTAATTC	TGTCAGTTCT	TGCTTCATAC	ACACACACAT	GCACATGATG
123751	CACATGCACA	CACGACACA	TTATGGGTG	TATATGGATT	TAGCAATGTT
123801	TTATATTCCT	GGTGGTTTGT	TTTATTAATC	CACCATCTTA	CTCTTAGTAG
123851	TGTTTCTTGC	CATTTTGGTG	TTTGATGGT	TTTTCTATCA	ACCTCTCTGT
123901	ATTCCTATAT	TTAAAGTTTG	TTTTGTGAGC	AGAATATACC	TTTTTCCAG
123951	TCTGATAATT	TAGTTTTTTA	ATTGGAGTCT	TTTCCCTCTT	GTGTCATTTG
124001	CCTTATTTTT	GTCATGAATT	TTTATTCTAC	ATAATTTTTA	AACACCACAA
124051	GATATTGTTA	ATTTTATTTT	GTAGAGTTAA	TATTCATTTA	TGCTATTTTT
124101	TTGGTGCTCT	TTATTTCTTC	TTGTACTCAT	TGTTTTTGTC	TGGTACATTT
124151	TTCTTCTGTT	AGAAAAATTT	ATGTCTAGGA	TTTAAGAAAT	GCTTTCCTGC
124201	TGGTAATGAA	ATCTCTGTTT	TTGCTTGGCT	AAAAACATCT	TTATTTCCCTC
124251	TTAATTTGAA	GGACTGTTTT	TTCTGGGTAT	AGAAATCTAA	CCAGATGCCA
124301	TTAATATAGC	TTGCAGATAG	ATGCAAAAT	TATTGATTTT	CAAATAATTT
124351	TCATCATTTT	TAATATTTAC	ATTGATATTG	GTATTTCTAG	TGATTTCTAG
124401	CACTTTCTTC	TAACTATCTC	CTTCTTTTTC	TAGCATCTTT	TAAATGGAAAC
124451	AGTCTAGGAT	TTGGAAAGAT	AAATGCCTTA	ATTCAAGAGT	CAGTTCTACC
124501	ATTTACTACC	TATGTGACCT	TGGCCAAGTC	ATTTAACTTT	TCTGAGCCAA
124551	TTTTCAATCT	ATAAAAATGG	GAAAAATATT	ACACGGGCTC	TATTTCACTG
124601	GGAAGTTATA	AGGGATTGTT	GAGATATTGT	CAGTGCTTTG	TAAAATGTAA
124651	AGTACCAGTC	AGCTCAGTTG	GAAATATTTA	TGTTTATTAT	TTACTGGAAC
124701	AGAAATATTTC	TCAGTGTACA	TATCCAAAAT	TCTCTTACAA	ATGCACATTT
124751	TCATGAGTAC	CCACAAAATA	GTTCAATGGT	ATTATTCATG	TATTTATTTT
124801	TGCTATCCT	TTGTTGTATT	AAGGACATTG	TTAAAAGTTA	CATAAAATGT
124851	AACTTACACA	AGGTCAATCA	CAAGTTTATT	TCTTATCTTT	CAAGTGACTA
124901	ACATGAAAAG	GAAAACCTGG	ACAGTTACAT	AATTCATAAT	GTCCATAAGA
124951	TAAAAAATA	TCAATTATTC	GGAGAAGTGC	CATTATTTCT	TAATACTAAG
125001	CTCAGACAGG	AATTTCCCTT	TCAGTTTTTT	TTTAATTGAT	GTAGAGTTAT
125051	TTAAAAATATT	TTCCGGCTGG	TTTAGAGGTT	ATTGATTTTG	ATGGTTAATC
125101	CAAATCAGTG	TTGGACTTAT	CTAGAATTTT	AATATTCTGT	TTCATACTCA
125151	CCATGGGAGA	ATTATACATT	TTAATGTGGG	CTTCAAGTAG	CTGCTCTTCC
125201	ACTCCACTTG	CAAAATGGATT	ATATTCAGAG	AATAATAAAT	AATGCCAGTT
125251	TCCTTTTCA	AATGCTTGGA	TACACATTAG	AGGGAAGGTT	AGGCTGCTAA
125301	ATTAATAATTA	TAATTTGCAT	ATATAAAATT	ATCAAACATG	CTTAGGAAGA
125351	TAATATTTCAG	CTGCATTTTA	TGTATTAAAA	GCTAATTCAA	AAAATCCTTA
125401	CATTAATCAA	ATACTTAGAA	TTCTTACTAT	GTGCAGGCAT	ACTGTTAACT
125451	CTTGATCTGC	TTATTCTTTG	ATAAAAAGC	TGTCATTTCAG	ACTTACTTTT
125501	GTGCTTTTAT	CTTTCACTATT	TTTGGTTTTT	TTTTTGGTAA	ACATGTATTT
125551	AAATGGAAAA	AAACTGTATG	AAACTGCATG	TTTAAGTCAA	CTACTGATTG
125601	TATGTTTTGTG	CCTCAGACCC	AATGCCCAA	CACATCTGAG	GTTTTGTATG
125651	ATGAAAAAAT	TTAAAAATAG	ATATTTGTTT	CTTATTTAAA	TCTTTTGACT
125701	TTGTCTTCAG	GTCACTGGCA	TGCATTTTGT	ATGAGATGTG	CTGCATGAAT
125751	CATGCATTTC	CTGGCTCCAA	TTTCTTATCC	ATTGTTTTAA	AAATTGTTGA
125801	AGGTGACACA	CCTTCTCTCC	CTGAGAGATA	TCCAAAAGAA	CTAAATGCCA
125851	TCATGGAAAAG	GTATAGAAAT	AAACATGTTG	TCACGAAAT	AATTTTAAAGT
125901	TGTAATTTAT	TTTTAGTTTA	CCTGAAAAAT	AATTTTCTGT	TTAAACATTA
125951	CAGCATGTTG	AACAAGAATC	CTTCATTAAG	ACCATCTGCT	

```

126001 TAAAAATCCC TTACCTTGAT GAGCAGCTAC AGGTATTTAA AATGAAAGGG
126051 ATTCTGGGAA ACAGGTATGA GCATTTGTAT ACACATTCCA TGACTTGAAG
126101 ATATGCAGTG GGGATATGAT TCAGTAAGAA TCAACCAGAA AGGAGGAAAA
126151 AGGCCAAAAA GAAGCTGAGA GGCCGAGGCG GATGGATCAC GAGGTCAAGA
126201 GATCGAGACC CTTCTGGCCA ACATAGTGAA ACCCGTCTC TACTAAAAGT
126251 ACAAAAAAAA TTAGCTGGGC GTGGTGGTGC GTGTCTTTAG TCCCAGCTAC
126301 TCAGGAGGCT GAGGCAGGAG GATCACTCGA ACCCAGGAGG TGGAGGTTGC
126351 AGTGAGCCGA GATTGCGCCG CTGCACTCCA GCCTGGCAAC AGAGTGAGAC
126401 TCTGTCTCAA AAATAAATAA ATAAAAATTT TTTAAAGCTG AGAAAAATAG
126451 TAGTCAGGAC AATCTCTTTC CAAAATAAGG TGTGTGTGAA CTCCCATTCC
126501 CCAGTGCCAC TGAATAAAG AAGTTAGGTT TCTGATTTTA TGCCAAAAC
126551 CAACATCCAC CTTGGAGCT CTGTTGACAG ATCTTACCTG AACACTTTGT
126601 AACTATATCC CTGCAAGGAC AAGAATATGC TAACAGAGGA TGCTAAAATC
126651 TAGGGTTATC ATTGACCATT TATAATTCCA ATCCTTTATT ACATATCTCA
126701 ATAATACTTT TTAATGATTA GCTAGGTTTA TTTTGTTTTC TTGTAAATTA
126751 GGAAATTTGA CATAGAGGCT GTGTCTCAGG TATTAAGAAA GCAGAAAATG
126801 GTCCCTCTT TAGAGGGCTT TTGTTTGTTC TTTTAAAAA CTTCTCAGGG
126851 TTTTACAATA CAGGTCCTG AAGCAAGTTT CCTCTGTAAT TTTATGCGTA
126901 ACTTTAAGAG GAACCACAAA ATGGTCATCC ACTTTAAAAA CTGTGGGTAC
126951 CTTTTTCATCA GTGGGGCATG TTCCAAACCC AAAGGAAGCA AAGGTGATAA
127001 ATGATGTGTA CTTATTAGTT GAGTGCTGGG CACTGTGCTG ACACCAGGGG
127051 ATGCCAAAAT GAAAGGAACA GGTATGTTTC CTGTCCTTTT GAAGCTTGAC
127101 TGCTAGTGAG AGAATCCAAT AACCAAGAAA AAGTAAGGAT GTAAATAAAA
127151 TAAGTATATG CCTAGCACTG GGAAGAAAAGT ATAATAAACA AACAGGATAC
127201 TGTAAAAATA AGGGAGAAAAG GAAGGGCTTT GCGGTCAAA GGAATAGGTG
127251 ACATTTCTTT ACCAGTGAGC CAATGGGAAG CAACCAGCCA TGTAAAGAGC
127301 CTCAGAAACA GTGTTTGAAT CACAGGGAAT AGCTGGCACA GAGAGTCCCT
127351 GATTATGTTG TGCCTTGGAG GTAGGTACAA ATGGGAGGGT TCTTATGCAA
127401 GCATATGCTC TCAGGGAAGC CCATGCGGTC ATGGGGAAGG CTAGACAGGA
127451 GAGGGAGGCA GGCTTAGGTT TCCTGATACT TCCAGCTCTC CTTCTGTGCA
127501 GGCCAAATGG GATCCAGTAG AACCTGCAGG TGGTCCTCTG GAAAGAGCCT
127551 CATATGCTGG TTGTGGGGAT CAAAAACACA CTGAAGAGGC TTTGAGCATT
127601 CAAAAAATAA ATGGGTCAA AGGTATTCAC AGGGATCTGC TGGGACCAAG
127651 ATGAGGCAAG TGAGGCCCTT GACTCTGGGG CAAAAGTTAA GGGGACACTA
127701 AAATTCATAA TCAAGATAAG TAATATTTTA AAAATCCAGA TTAATGCTTA
127751 AAATCCCAGG TAACAAGATA TTAACACTTT AAAGACAGAA TCCAGCAGGG
127801 CCAGGATTAG GGTGAGGTAA GTGAGGTGGA ATTGTGCAAG TTCAGGGTTG
127851 GATCCTATCT TTAAAGTTTT GCTATTGTAT TCTTTATAGT TTTTGGACAT
127901 TAATTTTGAT TTTTAACAAT AATGTTTATT AAAATTATTT ATCTTGGCTA
127951 CTGAGTTTTT TGGTGCCCTC TTAGATTTTG TGCCTGAGGT ATCTCACTTG
128001 CCTAAACCTT GCACTGGCCC TGGGAGTGTA GATACTGTCC TCTACAGTCT
128051 GGGAGGTTGG AAAAAGCTTG TGTCTTCTTG TAGCTGAAAG TAGGCCTGCC
128101 CATGATTGGC AAAAGGGAGT GAGAGAGCAA GCAGTGCAAG ATGAAGCTGG
128151 AGAGACAGGC AGGAGCCTGA CCCTGCAAGA TCTTCTTGGG AAAGCTACAT
128201 GTAATTTTAC ATAACCCAGG GAAAACTAGC ATGCTTTGTT CTCAGGCTCC
128251 CTGCCATGGT CAAAAGCACC CCAAATCTGA AAAGATTCTT GGTAATTTAT
128301 TCCCTTTTCAT CCTTAAAGAG GAGCCTTTAA GATATGTCAG GGTGATCTTT
128351 TTTTTCAGAA CCTAATGTGT AGATATTCAG AAATGACTCT GGAAGACAAA
128401 AATTTGGATT GTCAGAAGGA GGCTGCTCAT ATAATTAATG CCATGTAAGT
128451 AATTGCTTTG TTTTAAAAA GCCCATCGAG TGTAAATGTT AAATGTATTT
128501 GTCTTTAAAA ATCTATTAGC ACTAACTGA CTGCATCGAG TATCCTAGAA
128551 TTCCTTAAG TCTTGCCAAG AAATTAAGGA GCTTCAGGAA CTTGGTGTTC
128601 CAAAGCCCTT TACCCAGGT GGTAGCAAAT TGAAATCATG AAAGTTTAAA
128651 CCACTGCACA GCTTACAGAT CTGCAGGGTA GCTCTGCAGT TGCCTTGCAA
128701 GGATATAGAG AAGTTAATAT CTCAAATATT TAGTAACATT TATGCTAATG
128751 AGCCTTCCAT AATAACCATA AATGGCTTTC ACATGTTGTT TGTTTAATGT
128801 GAACCTGGCAG AGTATCTATT GACAAGAAAA CATTGTGGAG TCCTGAGACA
128851 ATTGAAAATA AGCCGAAATT CACTTTCTTG AAATATACAT TCCTTCACAT
128901 AAGAACTAAA CATTGTATTC CCCAAAGAAA CATAATTATT TCCTGATCTA
128951 ACTTCTCTCT CCTACCTCGT TCAAAATTTT TGTTCATATA CTTGCAAGAA
129001 CCCAGAATAC TAGGTTCTTA TGTTCGGAT TTTTGCATAG TTTTACAGTC
129051 ATGCACAACAT ATGGTATACA GGAGGTGTGC AGGACAGTGG GATGAAAACA
129101 GAAGCCCTCA ATAGGCTGAT CTAGCACAAA TATACTCCTC CAACACCCAG

```

FIGURE 3, page 41 of 141

129151 TCCAATGTTT CTCAACGCTA CCATGTTTGC TTTCCATCCT CACTTTCAAA
 129201 CTGAGGAAAT TTGCATGATC TCCAGTTAAG ATACACTATA TACCACAGGG
 129251 GGTAATTTT TAGACGTGTT CTTAATAACC TTGTTTTAT GGTTTATTAC
 129301 CTGCTATTTT AAGAAACGTC GAAATTTCCA ATTGTATTTT ATTAAGTAGA
 129351 GATGTAAGAG TAGTAGATAT TTTTAAATA CTGGACTAGT TTAGCTATT
 129401 ATTTTGTACT GTAGTTATAA AACTGACACT GTTTACAATT AACAGTGTTT
 129451 TAGAATCCAG TTGTTTGGAG GGTATTTTAC ATTATGAAAT ATTGACTTCA
 129501 GATGGTCACT GCTATTTTCG AGATCTATGA CTATGTTTCA AGGAGATCCA
 129551 TTGGTCTGAC AAAATAAGAG ATGTATATTC CTGAAATTTG CATGTCCTCT
 129601 GGAGTCTGTT GTCTGGATGG TATCAGAGAG GTATTAGAAC TGTCCTCAGA
 129651 GGTCAATACA ATTTTCTCAT AGTGTGTTGTC AAGGAAAGAG TTGGGTGTGA
 129701 AAGGTCTTCT ATAGTATTGG GTCCTAACCA AGTCAGGAAG AGAAGCAAAT
 129751 GCCATTGAGA ATGTGGTTGG AGTTCTTTCA ATGTGCCTTC CCTCTGAAGA
 129801 CTTTTAGAAG TGTGCCAGTC ATCCCTGTCT ATCTGGCTGC CTCTAGTCGG
 129851 CCATCTTGCC CCTTCCCTCA TGCTAAATTT TATTGATTGT GTCTTCTATT
 129901 CCAGGCTTAA TACAGTAGAT ATTTTGTGCT GAGGTATGGT GTAGTGGTTA
 129951 ATTGCACAGA TTAATAACAC TCTCTCAATT CAAATTCTAG TTCCCAGGTA
 130001 ATACTCTGTA TTAATTTGGA CAAGTTACTT AACCTCTCTA TGACTATAAA
 130051 AAAAAGTACC TACTTCATAG AGTTGCTCTG CATTTAAGTG AGTTAATTCA
 130101 TGTAAGTGC TTACAAGCAT GGGGTTATTA CCTGCTAAAA TGTTAGCCAA
 130151 TGTGATTATT TAGCCTCTTT TTCAGTTAAG GAAATATGCT TAACATTAAT
 130201 CATACATTGA AAGATGTTTA TGTGCTGGTT GTTGGGATCG AAAAAGTGA
 130251 AGAGGCTGTG AGCATTTCCAC AAAAAAAGTCAA AAGGTATTCA
 130301 CAGGGATCTG CTGGGAGGAG GATGAGGCAA GTGAGGCCCT TGACCCTGTG
 130351 GCAAAATTTT AATGGGACAC CAAAAGTCAAG AATCAAGATC AAATTTTAAT
 130401 GCAATATTGT AAAATTCCAA ATTAATGCTT AAAATCCCTG GTAACAAAAT
 130451 ATTAAGTAA TAAAGACAGA GTCCAGCAGG GCCAGGATCA GGTGAGGCAA
 130501 GTGAGGTGGA ATTGTGTAAG TTCAGGGTAG GATCCTGTCC TTAATTTTAT
 130551 GCTATTGTAT TCTTTATGGC TTTTGTGACAT TAATTTTGAC TTTTAAAAAT
 130601 AATTTTCATT AAAATTATCT TGGTTACTGA ATTTTGTGAG TGCCCCCTTA
 130651 GATTTTGCGC CTGAGGTATC TCACTAGCCT AAACCTTGTTG TTGGCCCTGG
 130701 GAGTGTGATC ATTGTCCATT ACAGTCTGGG CGGTGGGAAA AAGTTTGTGT
 130751 ATTCTGAAC ACAGAGTGTG TTATTAATCT GTGCGATTAA CCACTACACC
 130801 ATGCTGCAAC AAAAATATCT ACTGTATTAA GCCTGGAATA GAAAACATAG
 130851 TCAATAAAAAT TTAGCATGAG GTAGGGGACA AGATGCCCTA CCTCTAGTTG
 130901 GCTAGATGCA GCCAGGTGAG CCAGGTGGAA CAGCTGCCAC TGAGGGACCA
 130951 GGATGACTGG CACACTCCTA ACAGATCTTC AGAGGAAACA ACTGAGAGTG
 131001 GTTGGAGAGA AGACACAGAA GCTGGGCTGA AGGGGAGGA AGGTGGGAAT
 131051 CCTGTATGGG GCCACTGTAC ACCTGTGCAC CGGGACCTCC AGTGACGCTG
 131101 GGGGAATGGG TGAGTTGAAC TGGCAGAGAG CAACCTATTG TTGCCACAGG
 131151 CCTCTGGAAT CCTGGCTGGA GGACACCCCT TGACTACCAG GGACACTTGA
 131201 GTTGGTAGGG AGAGCTGCTT AGAGAAGTGG TAGGGGCAGC ACACCAGCTG
 131251 ATGTGAAGTC CAGAGGTTT GGTGCTTGAG TGTCTGCAGC AGAGCATGGC
 131301 CAGGGAGACC ATCCCCCTAG GCTTGACTTG CTCCCATGGG AGGCTTTAGA
 131351 CCCAGGGGAA CTGTCAGACT TGAACCTGTC AGGCAGTCTT ACCCATCAGA
 131401 GGGGGCTGAT CTGACCTGAG CACCCCTTGA TCTTCTGGCC TCTCTGAGG
 131451 CCCAGCCTGG CCATGCCTGC TTGCAGTGCA GCCACAGGTG TCTTGGGGGT
 131501 CTACATCATA GCTCCCGTAC TGCTGAGGAA TCATGCCTGA CTGGAGGAGA
 131551 GATCCAGTAG GGAGGCCTGC TCCTTCCCTT AACTGCAGCT TCCTCAGGCT
 131601 CACAGCCACC ACCCTCCCCA TGTTGCTTTT CTGGCATCTA TATACATGGG
 131651 CAGATTTTGA CTTTCTGCC CTGCCAGCGT GCATGTGCAT GCACACTGCC
 131701 CTGCTACTGC TGCTGACAGG AGTGTATCCC ACCTCACCTC CCCTGCCATT
 131751 GCAATCAGAG CCTTGGCGGG CACAGAGACA GCCAGCCCTG GCCCTACCAG
 131801 CACCTGCCCT CTGTACCAAC ACTGCTGCTA GAGTGAAACT AGGTGCAGAG
 131851 AACAGCGGAC CCTTCCCTGC CCTGAGTGGC CACCCCTACC TGTGTCAGCA
 131901 TGCACAGAGG TTGCACACAG ACCTATGCCC ACAAGTGCTG CACCTGTGTC
 131951 TAACACCACC ACCAGCAGGA CCACATGCAC AGTTGCCAGT GGAGGGCCCC
 132001 GGCTCCCTGA GCCATTTCTGT CTCTGCTGCT GCTGTGAATG CCACAAGGA
 132051 GACAGGCACC CTGACACCTG CTAGCACCTT TCCACAGCTG ACAAGTCTGC
 132101 ACCCTCCAC ACTGCCACTC CACCACCACT GCCGCTGCTG GCACATGCAA
 132151 GCAAGGATGG ATCTGCTGCC ACCATCCTAC AAAATGGTAT GGCTGGCACC
 132201 ATCCATCAGA GTGTAGTGAC CAGCTGTCCA GGAGCACATT GGCCCCCACA
 132251 GCGCAATGAG TTGACGACCT TGAGGAGCCA GAGAGCAAAA TTGGGGCCCC

```

132301 GTACAAGTCT CCCAGAGTTA GAGCACACAG CCCAGGAGCT GGGAGCTGAG
132351 CACTGGCTGC CTAAATTTT CCAGAAACAA AACCAGTCTA CTGAATCCAC
132401 CTTATAACAC AATCAAACCC TCAAAGTTAT CAAGTAGAAT AAAAGGAAAA
132451 AACATCCAAA GGATAGCATC TTCAAAGATT GAAGGAACTT CAGCCCACAA
132501 AGATGAGATA GAGCCAGTGC AAGAACTTCG AGAACTCAAA AAACCAGACT
132551 GCCTTCTTTC CTCCAGGTGA CCACAGTACC TCCGTAGCAA GGGTTCTGAG
132601 ACAGACTGAG AAGGCTGAAA TGACAGAAAT AGAATTCTGA ATATTAATAG
132651 GAATGAAGAT CATTGAGATG CAGGAGCACA TTCAAACACA ATCCAAGGAA
132701 GCTAAGAAAC ATAATAAAAT GATACAGGAG CTGACAGAAA AATAGCTAGT
132751 ATAGAAAAGA ATGTAACCTG CCTGATTGAG CTGAAAACCA CACTGTAAGA
132801 ATTTCAGGCC GGGCCCAGTG GCTCATGCCT ATAATCCCAG CACTTTGGGA
132851 GGCTGAGGTG GGTGGATCAT TTGAGGTCAG GAGTTTGAGA CCAGCCTGGC
132901 CAACATGGGG AAACCCCATC TCTACAAAAA TACAAAAGTT AGCCAGGTGT
132951 AGTGGTATGT GCCTGTAATC CCAGTTACCA AGGAGGCTGT GGCAGGAGAA
133001 TCGCTTGAAC CTGGGAGGCG GAGGTTGCAG TGAGCTGAGA CAGCACCATT
133051 GCACTCCAGC CTGGATGATG GAATGAGACT CCATCTCCAA AAAAAAAGA
133101 ATGCAATCTC AAGTATTAGC ATCAGAATGG ACCTAGCTGA GGAAAGAATC
133151 TCAGAGCTTG AAGACTGGTT TTCTGAAATA AGACAGTCAG GGAAGAATAG
133201 AGAAAAAGGA ATGAATAAAA CCTCCAAGAA ATATGGGATT ATGTAAAAGA
133251 GGTCAAATCA TGTCCCTGAA AGAGGTGGGG AAAATGAAG CAATTGGAA
133301 AACACAGAAA TACATTGCAT AGAAACATAG AAATTTTCATC CATAAGAACT
133351 TCCCCAACCT AGCTAAAGAG GTCAACACTC AAATTCAGAA AATGCAGAGA
133401 GCCTCAGTAA GATACTTCAC AAGAAGATCA TCCCCAGGA CACATAATCG
133451 TGAGGTTTTT C AAGGTCAAA ATGAAAGAAA AAATTTTAAA GGCAGTTGGA
133501 GAGAAAGGTC AGGTCACATA CAAAGGGAAG CCCATCAAA TAACAGCAGA
133551 TGTCTCAGCT GAAACCTTAC AAGCCAGAAG AGATTGGGG CCAACATTCA
133601 ACATTCTTAA AGAAAAGAAA TTCTAACCCA GAATTTTCATA TCTTGCCAAA
133651 ATAAGCTTCA TAAGCGAAGG AGAAATAAGA TCCTTTTCAG ACAAGCAAAT
133701 ACTGAGGGAA TTGTTACTAC CAGACCTGCC TTATAAGACC TCCTGAAGGA
133751 AGCACTAAAT ATAGAAAGGA AAGACCATTA CCAGCCACTA CTGGTACACA
133801 CTGAAGTACA CAGACTCTAA GTGACACTAT AGAGCAACCA TACAAACAAG
133851 TCTGCATAAT AACCAGATAA CATCATGATG ACAGGATTAA ATCCACACAG
133901 ATCAATCCTA ATCTTGAATG TAAACAGACG AAATGCCACA ATTTAAAGGC
133951 ACAGTGTCTG GTTGGATAAA GAAGCAAGGC CCAACTATAT GCTGTCTTTG
134001 AGACCCATCT CACATACAAT GGCACACATA GGCTCAAAGT GAAGGATGGA
134051 GAAAAATCTA CCAAGCAAAT GGAAAATAGG AAAAAGCAGG GGTTGCTGTT
134101 CTAATTTCAA ACCAAACAGA CTTTATACCA ACAATAATCA AAAACAAAGA
134151 AGAGCATTAC ATAATAGTAA AGGGTTCAAT TCAACAAGAA GATCTAACTA
134201 TCCGAAATAT ACATGCACCC AATACAGGAG CACCCAGATT CATAGGGCAA
134251 GTTCTCAGAA AGCTTTACAC CAGTCAGAAAT GGTGGATCAT GAGGTCAAGA
134301 GATCGAGACC ATCCTGGCCA ACACGGTGAA ACCCCGTCTC TACTAAAAAG
134351 ACAAAAATTA GCTGGGCGTG GTAGCGTGTC CCTGTAGTCC CAGCTACTCA
134401 GGAGGCTGAG GTTGGAGTGA GCCGAAATCG TGCCACCGCA CTGCAGCCTG
134451 GCAACAGAGC AAGACTCCAT CTCANAAAAA AAAAAAAAAA GAAAAAAAAA
134501 GTCAAAAAAT AGATGCTTGT GAGGTTGCAG AGAAAAAGGA ACACTCATAC
134551 ACCATTGGTG GAAGTGTAAT TTAGTTCAAC CATTTGGAA AACAGTGTGG
134601 CGATTCCCTA AAGACCTAAA AATAGAATAC CATTTGACCC AGCAATTCCA
134651 TTACTGGATA TATACCTAAA GGAATATAAA TCATTCTATC ATAAAGACAC
134701 ATGCACGCAT ATGTTCAATT CAGCATTGTT CACAATAGCA AAGACATGGA
134751 ATCAACCTAA ATGCCCATCC ATGGTACACT AGATAAAGAA AATGTGGTAC
134801 ATTTACACCA TGGGATACTA CACAGCCATA AAAATAACAA GATCATGTCC
134851 TTTGCAGCAA CATAGACAGA GCTGGAGGCC ATTATCCTTA GCAAAGTAAT
134901 GCATGACCAG AAAACCAAAT AATGCATGTT CTCACTTATA AGTGGGAGCT
134951 AAATGATGAG AACACATGGA CACATAGAGG GGAACAACAG ACACTGGAAT
135001 TTTTCAGAGG GTGGAGGGTG GGAGGAGGGA GAGGATCAGG AAAAATAACT
135051 AATGGGTACT AGGCTTAATA CGTGGGTGAC AAAATAATCT GTACAACAAA
135101 CCCCTATCAC TTGAGTTTAC CTATATAACA AACCTGCACA TGCATCCCTG
135151 AACTTTAAAT AAAAGTTAAA AAATAAAAAA ATAAGATTTA GCTATTAAAA
135201 TACTAGCATT TTGGAATACT TTTTATGTGC TAGGCACTGT GCATATGTTA
135251 TCTCATATGA TACTTACTGT AGCCCATTTCT TTACAGATGA GAAAAGTGG
135301 ATTCAGGGAG GTTCAGTTAC TTGCCAAGG CCACAGAGCT AATGAGTGGT
135351 GGAGGTGGGA TTGGAACCCCT TCGAACCCTT AAGATTATG TGTTTTATCC
135401 ACATGGTGGA ATTACTGGGC CAGTCTATTT ACTCTTTAAT GGCCAAGATC

```

FIGURE 3, page 43 of 141

```

135451 CTAATTTGTT TTACATTATG AAAACTAGTC ATTGGCGATG AAATGAGCAG
135501 GAATTTGGAA AGTAAATAAT TTCCTTTAAA CAAAAATCTA ATTTGAAAAA
135551 TGTTGCTTAT TAACACAGT CCTGGTTGGC TCATTACATA CCCAAAGCTT
135601 ATTAGTTTTT GCCTGGCCTG TCTCAAGATG CTTTGTCTCT CAGTAGTGTA
135651 GTGATACTTT TATAAAATAT TTGTTTAAAT TTTCTGAACA TGTTTGGGAT
135701 GGGCTATATG AGGGGAATCT TTGTTATTTA TAGGCAAAAA AGGATCCACC
135751 TGCAGACTCT GAGGGCACTG TCAGAAGTAC AGAAAATGAC GCCAAGAGAA
135801 AGGATGCGGC TGAGGAAGCT CCAGGCGGCT GATGAGAAAG CCAGGAAGCT
135851 GAAGTAAGCT GCTTTTCCTT TAGGCACTCA TGCTCGGGAC TACTTCTCAG
135901 GGCTCTCAGG GAATTTACAG AGAAAAGCAA AAACCAAAAC AGGAAACCCC
135951 AATGCATACG ATTATGTATT TATGTGTTTA TTCATTCACT TGTTCACTCC
136001 AAGATGATTA TTGAGCCATA GATTGAATGT CAGGTGCTAT TAATATCAGG
136051 CTTTCAGTCT TGTGTGAAGG GAAAGATTAA CTATTTGGGA GGTTATTAGT
136101 GATGAAAATA GGGTCAGTTT CCAAACGAAA TCTCATTGTT GTTGACAGCT
136151 TCTGCACATA CCCCAGCAGG AGACATCACT GTTTCACCCG GATTCCCTAG
136201 GTGCTTGCTG CGTACCTTCT ACCAGGAGAC CTCACTTATT TATAGGAAGG
136251 AGACTTTATT GGCAGGAAAT TGTTAGCTTT TGGAAGAAGT AGACTGGAAG
136301 CAGAGCTCTG TTCTGTCAAG TGAAGCATTT AGAAAAGTCT ATGCTCAGGG
136351 CGATGTTGCT GGTGGGAGAT ATCACTAGTA ATTAGAGTAT TTACATGAAA
136401 AAGTGAAATT TCAGGTGTTA GCCAGGATGT AGAGAAAAGG GAACCCTTGT
136451 GCAGTAGTGG TGAGAATGTA AATCAGTACA GCCATTATGG AAAAATAGCA
136501 TGAAGATTCC TCTAAACATT AAAAAATAGA ACTACCATAT GATCTGGCAA
136551 TCCTACATTT GGACTTATAT CCAAAGAAAA TGAAATCAGT ATATAGAAAA
136601 GATACTTATA CTCCAATGTT CATTGCAGAA TTATTACAG TAGCCGAGAT
136651 ATGGCATCAA CCTACGTATC CATCAACAGA TAAGGGGATA AATAAAATGT
136701 GGTATAAATA CACACAATGG AGTACTATTT AGCCTAAAAA AGAAGGGAAT
136751 CCCATCATTT GCAACAACAT GGATGAACCT GGAGGACATT ATGTTAAGAG
136801 AAATAAGCCA GGCATAGAAA GACAAATACT GCATGATATC ACTTATATAT
136851 GGAATCTTAA AAAGTTAAAT TCACAAAAGG GGAGAGTAGA ATGGGGTTAC
136901 TAGGGGACAG GGGGCATGAA TGGGGAAATG TTGTCAAAAG GTAAAAAGTT
136951 TCAGACAGGA GAAATAAGTT CTGGAGATCT ATTGTACAGC ATGGTGACTG
137001 TAATTAATAA CAATGTTTTG TATTTTTGAA AATTGCTAAC AGAGTAGAGC
137051 TTGATTTAAT TATCCACAA TGTATACATA TATAAAAACA TCACACAGTA
137101 TATATAAATC TAAACATTTT TTGTCAATTA AATTTTAATA AAGCTGAAAA
137151 AATACATGTA TAAAAATGGA ATTTCAAAGA GGCTTAGAGC CTCAATTTCT
137201 GAAAGACTGA TTTATGTGTT GGTAGGTTAT CAAATTTCCA AATTTTCTT
137251 ATTTTTTCTT CCTCTGCCAA TATTTTGTA GTTAGGAGC CCAATCAAG
137301 AACTAGAGAG ACAGAAAGAA CCTGAACACA AATCTACGCA TTTTGTTCCT
137351 TTGTTAATTT ATCCAAAAAA TGATTTAGAG GTGTCCTTGT ACTTAGAATG
137401 AATATCACGA TAAGCCAAGT AAGAATCTAT GAGTCTATTT TCCCGTAACA
137451 TTTGCTTTCT TTAATAAATT GGTAGAGAAA GATTTCCATG AAAGTACATT
137501 GTGAGCAGTG GTGTGCTGGT AAATATTTAA CAACCAGCTC TGGGTTTGAA
137551 GGGGACTGCT TATTTGTTTG CTGATTTCTG TGATATAAAT ACTTCCACTG
137601 TGGCCAATAT CAAGCTAACA ATATGATACC ATTTAATATT CAGTTGGGAA
137651 GATATTTACA CAATCTGCTC TTGAGCCAAT ACAAGTTGGA TTCTGCAAAC
137701 CACTATGACA TTGAGTGTGA GTTTTACTGG GAAAATATAT TCACATAAAT
137751 TGCTTGAGCC ATTGATCAG CTCACAGCCC CAAATCTGTT CGTAATACCT
137801 CAGAAATGGT GATATTTCCA AGGTGCCATG ATTCGTGTCA TTGGCTGGGG
137851 GTAAAAGGAA AATTAAATCT CTGATAGGAA CAGATTAAAA AGGCAAATTT
137901 AATAACATAT ACAGATTACA AAATACATTA AAACGTTTTT TTAATACAAA
137951 GAAGTCACAT ATCTTTCACA TGATACACTA ATATATTTTT CTTATTTGAA
138001 AGTAATGGTT TTAAATAAAG TTTGGTCTTG ATTTTGTGAA TAAGTTGTAT
138051 TGGAATTGTT TCTAGTTGTT GATTATAGAA TCAAGGGGGA TCATGTGTTT
138101 TAGCTAGAAA ATGACTCTAT TGTCAGAAGA ATTATAATGT ACCCGTTTTA
138151 GAGACAAGGG AGTTTGACTA GAAGGTGTT CAGTGATGAA AACCTGAGTA
138201 TAAATTAGCC CACAAGTAAT CATAAGAACT CAAATCTTTC TTCCAGTTTA
138251 GTAGCAGGTC GCTTAACTC ACTCTCTGT AATAGAGAAA ACAAAGTAAA
138301 TGTGTCTAGA AAAATCCCC TGCGCAATGA CTCCCAGATA TTTCTCATA
138351 AATCCTTTGA TATGTAGCTC TAGTTTTACT TTTTATGGGT TTGTTTATCC
138401 TGAAAGCAGT TTTTGTGTTA TTAGTATGTG TTAGGCACTG TGCTAGGCAT
138451 TGGAACACA TAGCCCTGTC ATTGCACTTG GAGAACTCAC AGAGAGGAGC
138501 ACTGCCTTCT CCTGCTGCTG CATTTTGGGA TTTGTAAGGG TGAATAAGGA
138551 ACCAGAGTAT CTTGTGTGTG CTTTAAAGA GAATCAGCCG GGTGCTGCAC

```

FIGURE 3, page 44 of 141

```

138601 CACATTCACC TTGATGAGGA AGAGACCTGA TGGCCTGGCT TTCTAATCCC
138651 CCAGTCAGTC TGTTGAAATA AGGATCACAC TCATCTGTAT AATATAGACA
138701 TGGTTTTAGC AATTCGCAGT TATTTTTCTA CATTCACTTT AAATTTACAG
138751 AAAGATTGTG GAAGAAAAAT ATGAAGAAA TAGCAAACGA ATGCAAGAAT
138801 TGAGATCTCG GAACTTTTCAG CAGCTGAGTG TTGATGTACT CCATGTAAGT
138851 ACCCTCTTAT TTTAAATTTT ACATAAAAAT TTTTCTTGCT TTAGATTCAT
138901 GGCGATGATT GGGTAGGAAA AGGGACAAGG GAGAAAACAA GAACATCCAG
138951 ATTAACCTCA CCCAATTCCA GGAAGGATTC TAGAATGTAG GTCAACAGCT
139001 GGTGACAACG ATTCAAAGCG GCTGTAGCGA GAGGTGGATC AATTGATCCA
139051 TTTAACAAAA ATCAAGCTCC TACTCTGTAC AAGACAACCTG AATTGGCACT
139101 GAATGCATAA CTGATGGGTT AAAATGATTA GCTGACAGAA CAAATGTGTG
139151 TATATCTAAT TTTTAATTCC ACCCATGCTA TTGTTGCTTT ACCTCTTAG
139201 TACATTGTTT TCTTTGTCTG GTTTTTATTG TTTTCTTTT TATTTTGTTT
139251 CCTACCCATT TTGTTGTACA TTGTGTTAAT AATTTTCATC AAATTTTAAC
139301 TGTCATAGAT GTTCAATAAT GAATAGAGTT GCAGATTCAC ATGAAATGAC
139351 CCCAAATTCA TGTCTCGGC ATTCCAAATC TGTAAATAGC AAACACCATT
139401 TTCTCTAATG GTTGACAATA TCTCCACAGG CCTTGGGTAG GCTCTGATTA
139451 ATAAGGTGGT CTTTACAACG TCAAATTTGG GCAATAGACA TCAATACCAA
139501 CCTCATAGCA CTTCAGGTAA AAGCAACTTG GGATGAAGCC ATTTTATAG
139551 AGAACTTCTA CTGTCTCAAA TTCTGATTTT TATTCACGGA GATCCCTGCA
139601 TGTGAGAGAT TCTCTCCTTT AGCAGGAAGC ACCAAGCTCC CTGAGGCTGT
139651 GGGGACAATC CCCCAAGCCC CAGGGATGCT AATTCTGTTG TAGCTTAGTT
139701 ATCAGATGGC TCCAAGCCCT GGGGCATGCA GGAGACCTCA CCCTCAGCCA
139751 GACAGGGCCC TCCTTTAAGG GGGAGATCTG CCAGTAATGC ATCTTTCTCA
139801 ATTATTTAGG GGTTCTGTGT GCTTTGGAGT TCTAAAAATC CCAAGTGGGG
139851 ACCAATAAGA GGCCTAGCTT CCTCTAATTT CAGGAGTCTT CCTCTGTTT
139901 ATGGACCAGT TAGCAGACAA TGTGGGGATG ATGGTAATAT GTGCTCAATT
139951 CCATCCCCCT TTTCCCACCC CTCTGACACA CCATTTAAGT GAAGGCCCCC
140001 TGTGGGATCT TTGTCAGGCT ACAGAGAATT GGGAGATGGG TTCTTTCCTG
140051 CTCAGGGAAC GTTGGCAGTG AAGAACCCTG TGACTGAAAG GCCATGGGGT
140101 CAACAATAGG GCTGGATCCC TAGTTGGAGA AAGGTCTTGA TGCCACCACT
140151 ATGGAAGGAC TCAAGCCCCC TCTGAAACT GGGTGCATTT CTTCAGCTTC
140201 CCACACACTT CTAGGCCCTG CAAATGATAG CCTGTTAAGG TGGCTCTTCT
140251 TCTCTGGTGC AGTCTGCTTT GTCCCCCTGC AGTGTGAGA ACTGCACATT
140301 CCCACAAATC CTGACAAGGA GGCTGACAGA ATTATAAGAA TTCCGAGTTT
140351 GTTAATGTGT AAAGTACTTG TTTATTCAGC TATAGAAATG GGGACATACT
140401 TTTCTAGAAT GCTCAGAGAT GTTGTATTTC TTATAAGTCC TCTGCTAATT
140451 CATATGCTGC TGGTCTGATT CCTATGTACA CTCTGATTAA TAATGAATAG
140501 AAAATGGGCC TCCTGAAAGC AGTACTTCAC CTCAGATGAG GGAAGACTTG
140551 GAAAACCACT GCTCAGCAGA CCTTGTCATA ATCTCTTCAG GGTCTGTCT
140601 TCCTCTTATA AATCAGGGAT CACTGATTCT AAGGGATTTT CCCCCTAAGA
140651 TTGAAAATTG AGAAGTACAG GCATGGTATT ATTTTGTCTT TTTAAATCTA
140701 AATGACTTCA TTCTTGAAGT TACCATATGG CAAAAAAGAA ATGTAGTTTC
140751 AAGTATGAGC TTAAATATTA GTGTCTGATA ATTTACTTAC CTTTTTGTCT
140801 TTTCTTCTTT GACCCTTCAA GATCACCATG TTTGTGTTCT TTTTATTGG
140851 ATGGAATTAT TATTGGTGTT ATAACATATC TCTATGAGGT CTTGTCTTCC
140901 TCTTATAAAT CAAGTCCCTT TGGGGGCCCT GAAGTAACTG AAGATAAGCC
140951 TGAGACCATA TGGCAGGCAG CATCCCAAAA AATGTTCTTA TGCATATATT
141001 ACTCCACAGA ACATGGGAGC TAGACACAAA GTTCTGATCT TGGCCCAACT
141051 CAGATGAAGA AAGAGAGGAT TTCACAAGGA TCCTATGAAC TCCCAACTCA
141101 TCACTTCCCC AGTGAATTC CATTTTCATC CCCTTCCCAT CAGCAAGGAG
141151 CAAAGGGAGC AGGAGGGGAA GCGACCGATG CTGATGCTGT TCTGGACAAA
141201 GACTGTGGTT TATTCTTTGA TCTTCTGAGA TTAGTGCCAC CACTGTCTTT
141251 GGCCCTGAGC TTTCCAGAAG CATGTTTCTT ATGTTTATAT ATTGATGGGG
141301 GCAGAAAATG TCCAGGCAGA TAGATGGCTG TTGAGTCTGT TCTGTTTGAA
141351 CACTGTGTCC TCTTGCCAGC TGGTTCAGGC CCACAGACTG GATGGCTCAG
141401 CATCGCCAGG CATCCTGCCC TCTTTTGTGC AGTCACATCA GTCATTTCCC
141451 TCTGGCACAT TGTCAGCATC CCATCTCTCT TTCAATTGTT TTCAGGAAAA
141501 CCTTGTGAGC CCACTTGGGT CCACAATCAA TGGACCCTCC TCCAAATTCT
141551 TATGGCTTAT AGTATTCTCA AACTTGAAAT GCACCTTGAT TGCCATATGAA
141601 TCTTGTTAAG ATGCAGATTC TGATTCAATT AGTCCAGGGT GCAGCCTGAG
141651 ATGTTGCATT TCTTTTTTTT TTTATTTTTA TTTATTTTTT TTTTTTGG
141701 ACGGAGTCTC GCTCTGTCGC CCAGGCTGGA GTGCAGTGGC GGGATCTCGG

```

FIGURE 3, page 45 of 141

141751	CTCACTGCAA	GCTCCGCCCTC	CCGGGTTACAC	GCCATTCTCC	TGCCCTCAGCC
141801	TCCCAAGTAG	CTGGGACTAC	AGGCGCCCCG	CAC TACGCC	GGCTAATTTT
141851	TTGTATTTTT	AGTAGAGACG	GGGTTTCACC	GTTTTAGCCA	GGATGGTCTC
141901	GATCTCCTGA	CCTCGTGATC	CGCCCCGCCTC	GGCCTCCCAA	AGTGCTGGGA
141951	TTACAGGCGT	GAGCCACCGC	GCCCCGGCCGA	TGTTGCATTT	CTTATAATCC
142001	CTCTGCTAAT	TCCTATGCTG	CTGGTCTGTT	TCCTATGTAT	ACCTTGATTA
142051	ATAATGAATA	GAATAATGGC	CTCCTGAAG	GACGACTTCA	CCTCTAGATG
142101	AAGAAAGACT	TGGAAAACCA	CTGCTGAAAC	GACTTTGTCA	TAACTCTTTT
142151	AGGAAAAAAC	ACATTTAAAA	GGAATGGAAG	AAAAGGAGGA	GCAACCTGAG
142201	GGAAGACTTT	CTTGTTTACC	CCAGGACGAG	GATGAAGAGA	GGTGCCAAGC
142251	CAGGGAAGAG	GCAAGTTTAA	TCATATTAC	AAGCACA AAA	GTGAGGCAG
142301	TTTAATGATA	TCCAGAGAAC	AAAGGGGAAA	GAAAATGGGA	AGCCGAACAC
142351	TTTGCAAGAG	AGCCTGAAGG	GTTTTAAATG	TAGCAGGAAA	AGGCTTCATT
142401	GAGCTGAAAA	AGATGAAATA	AATATAGGAA	AGAAATTAGA	TTAATCAGAT
142451	GCAAGAGGCT	AAAGAAAAAT	GTGATAAGGA	GAAGAGGAAG	AGGAAACTGC
142501	TCCCATCTTT	GAGTGCTTTC	CTCCCCCTTG	CCCATATACA	TGTTTATGAT
142551	TTAATTCTTT	GCTAATCTCA	TTGGGGCTCT	GTTCTCTATT	CCTTTTTGCA
142601	TCTCTCTTGC	CTGGTGGGAG	CAAGCTACTT	TATATTTCAA	AAGCACTTAC
142651	AGGAGAGAAT	CAGAGTTATG	GGAGAGAATG	GGCTCATGT	CGCCTCTCAA
142701	ACATGTTATA	AAAATTATTT	GAGGCATGTA	GAGAGAGTGG	CTTGCTTTGT
142751	TTTTCAGACC	CTAGCTGACA	AGGCCTTTTA	TTTTAGCAGG	CATTTTCTGC
142801	TTGGCTGAAT	TTGGGCTTTG	AAATCTTGAA	GCACCATCGA	ATGTGGAATC
142851	ATGTTAGGCA	CTGTTTCTCT	AAAGAATCAC	AGCTTAA AAC	AGTTGGATAC
142901	CATAATACAT	AAGACAGGCC	AGGTCTGTCT	TTGATCCTGT	GGCATATACA
142951	GTTTGTCTGG	GGCTAAAGTT	AGGCTCTGTT	GAAAAGTACA	TAGCAGATCA
143001	GGTCTCCATA	CGTGGAGAGG	TAATGGGGAT	CAAAAGTACG	ACCATGTCCT
143051	TCTCTTCTTA	AGAGAAGCAA	TTATAACAAT	TCTATCTTTC	TCTTCAAAGA
143101	GAAACTCAGC	AAATCAAAGT	TAATTGAGAG	TCCAAATACA	TACTTATTTT
143151	CAAAATAATT	CTGAAGTGCA	CGTAAAGACG	TATTTCATGT	ACTCTCTGTT
143201	CTTTATCTGT	AAAGTTCTCT	GTGTGCTCTC	AGTGATCCTT	TGAAATCTGG
143251	AACCAATTTT	GCCTCTGAA	ACAATTATTA	TGCGGTACAG	AAAAC T GACT
143301	TC T T A A A A C	ACTTTATGAT	GATATTCTCA	CAAAATACCG	ACTGCAGTGT
143351	GGCATGGCTT	CATTTTACTT	ATTAAGATTA	GTTTGAAC TT	TCTTTTAAAT
143401	TTTCTTTTAT	TAAAAAGACA	CTCTTGGAGT	AGTTTCCCAT	GAAAACCATT
143451	TATCAAGAAA	AATAGATCAA	CTCAGCACCA	GCTCCAGGTT	CAAACACAAA
143501	TACACACACA	CACACAAAAC	TAAGGGAAAA	AGGCAAAATG	ATTTCTTGAA
143551	ATACCTATTG	ATTTTGGCTA	AACCTTTTAT	TTTTTTGAAG	TGTGAATCTT
143601	TT CATCATGT	GGTCTCTTAG	ATCTTTTTCT	TTTTAGGAAAT	TGGAATTCAT
143651	AGAATCACAG	AGCTTTAAAG	CTAGAGGGGA	ACTTGTAAGT	CTTACAGGCT
143701	AACACCTTTA	ATTTTGAGAT	GCAGAAACTG	AGCAGGGCTG	GAGTAGGGTG
143751	TG G T A A G T G G	AACACCATAG	GTGCCAAATT	GAAGAAGGCC	CCCCTCAGCT
143801	GTCAATGGAG	TGAGTACCTT	CAATTGGTAC	CTTGGGCATC	CCACTTGGCT
143851	TATCTAGTCA	TGATCCTGAA	ACTGAGCCCA	TGAAGGTTAA	ATGCTTTGTC
143901	CAAGGTCACC	TGTCTCATTG	ATTACAGGCT	GTTTCTCTTA	TCCCACCTTA
143951	CCTCCTGAAG	TTTGAAAACG	TTTAAGGGAG	AGGATTAGGT	AGGCTTGTTT
144001	CCAAGTAGTC	TTCTAAATAA	GAATATTTTT	TTCATTTGTG	GTAGTGCTGT
144051	TTCTTCTAT	CAGCATCTCA	TGAATTGTTA	ATTACCTTCC	ACAAGGAATC
144101	TGATGAACCA	ACTTTAGAGA	ACCTGCCTGA	GTCTCAGCCT	ATTCTTTCCA
144151	TGGACCTCCA	CGAATTTGAA	TCAATTGTAT	AGGATGCCAC	ATCTGACCTT
144201	GGATACCATG	GTATGTGTTT	CGATTGATTT	TCAGAAGGAT	GCTCAGAGCT
144251	GCTGCACAGG	TTGCTGTGGC	CGATTTTGCA	GTGGGTCTGT	CTGGCCTCTG
144301	GGAGAAGCTC	TGAGTGTGTG	CAGCTATTAT	CAGTTTACCA	GGGCTGGGCT
144351	ATGACCAGGA	TGAAAAGTAG	AGAAGCCAAG	GATTTTTCTG	TCCTCTCTAT
144401	CTTCTTTGCA	ATAGTGAGGA	TGAGTTGGAA	ACTCACACCT	GGTGAGAGAC
144451	CTCTTCTGGG	TGGGTTAAAC	ACTGTTGTGC	TTAAGCTGAC	TTTGGAATTG
144501	TGCAAAACCTC	GAATACTCTG	GAGCACTGTG	TCTTCCCTGT	TCGTATAATT
144551	GTTCTTCCAG	TTGTCATAAA	TTTAAATTGA	AGAAATGAAG	CCAGGCTTTG
144601	GAAAATCAGC	TATGCAGATG	TGCATTACCA	GAAAATAAAA	GTGCTCAGAG
144651	CAGGAATACA	AAGGGAGGCC	TGTAGGATGG	CTGACTTTGC	TAGAGGACTT
144701	CTTGATGCCT	TTGCTACCTC	AGACCACACA	GCAAACGAGT	ACACTTCCAG
144751	TAAACCTCTA	TTTTCACCTG	GAATAAGACT	TTAATTAGTG	GTCCAAATGG
144801	AGCAGATACA	TGCAAAATGA	TAGGTTACAT	CATAAGCTAA	TGGTTAAATG
144851	CATGAGTTTTT	GGAGTAAAAA	AGTTGGCCCT	ATCAGAGAAG	CGCCTGCACAA

```

144901 CATAATCTCT CTAGGTCTCA GTTTTCTTAT CTATGAAATA AGAATAATAA
144951 TGCCTTCTTT CAGGGTTGTT GTGAATAGCA AATGAGACGT GGCATGTGGA
145001 GTGGTCTTAG TTCAGTGCCC AGCACACAGT AAGTGCTAAA GAAGGGGAAG
145051 CAGTTATGAC ACTTTGAGCA GAGGAGGGTT ATCAATATAG GTGTCTTCTC
145101 AGTCTTGTTT ACCAGTCTCC CCAGTGCCTA GAGCAAATTT CCAGGAACAT
145151 GCTAAGCACT CAATAAATAT TTCTTGAGTG AATTAATGAG TGGATGAATA
145201 CATGAGTGAA TGTTAGTCTG ATCCTCTGAG AAGCAGATGC TAAGACTAGA
145251 CTACAATTGC AACGTTACTT TTAGAGAAAA TGCTTATATA AAAGAAAATA
145301 GGAAAGAGCT AGAAAAAACC AGGGGAACCA TTAGACCACT GATTAAAGTC
145351 TTATTCCAAG TGAAGAGAGA GGTGTTGGTGA AGGTGAACCTA GATTCTCTCTG
145401 CAGTTAGAGG TAGCAAAGGC ATCAGGAAGT CCTCTAGCAA AGTCAGCCAT
145451 CCTACAGGCC TGCTTTGTA TTCCTTCTGT GCTCCAGTAG TAGCCCATCG
145501 GGAGGCATCA TAGCCTCTGA GAGAATGCAG AGATGGATTT CAGAGCATAG
145551 CAGCTGGGAT CCTGGGCCAG TTGCACTCTG TGTTGTTGGA GGTCTGCAAG
145601 TGCATCCTTA TGCTGCACA ATGATGTAAC AGCTCTTTT GGCAGCAGTT
145651 TAGCTGTCTT CTCAAATTGA GAATTAAGGT AGTGAACCTT GGATTATCTT
145701 GTCTTCTCAG CAGATTTGCA CTTGAAGTCT TCTTACTAGA GCTGTTAAAG
145751 CCTGTGCTGC CTCTTCAGC TGTATGGAGA CAAGCACCTG AAGCTCTTTA
145801 GATTGGCATT AGCCAGCTTT TAAAATGGTG CTATGGAAGC CATCTTGTA
145851 CAGACATTCT TGACAAACAA ATATATATTT CAGATGGATT TCTGTCTTAG
145901 GCCTTTTATG GTATTTGATA TATTATTTGT TAATTCCAA AAGTGAAATT
145951 TGGAAGTATA GAAATATCCC ATGGACTTCT CTTTCTAAAA ATAGAAATGT
146001 CAGAGACATT AGAACAGAG CGACTCCATC TTGAATAAGA GCTGAGTAAA
146051 ATAAGCTGA GAACACTGG GCTGCATTCC CAGGAGGTTA AGGCATTCTT
146101 TGTCACAGGG TGAGACAGGA GACCAGCACA AGATACAGGT CACAAAGACC
146151 TTGCTGATAA AACAGGTTGT AGTAAAGAAG CCAGCCAAAG TCCACCAAC
146201 CCAAGATGGC AAAGAAAGTG ACCTCTGGTC ATCCTCATTG CTCATTATAT
146251 GTAAATATA ATGCATTAGC ATGCTAAAAG AACTCCAC CAGCACCGTG
146301 ACAGTTTACA CATGCCATGA TGACATGGGA AGTTACCTTA TATGGTCTAA
146351 AAGTAGGATG AATCCTCAGT TCTGGGAGTT TCCCACCCCT TTCTTGAAA
146401 ACTCATGAAT AATCCACCTG TTGTTTAGCA TATAATCAA AAACAACAT
146451 AAGTCTATTC AGTCGAGCAG CTCATGCCAC TGCTCTGCTC ATGGAGTAAT
146501 CACTCTTTTG TTTCTTTACT TTCTTAATAA ACTTGCTCC ACTTTTCTCT
146551 ATGAACCTGC CCTGAATTAT TTCTTGTCG AGGTCCAAGA ACCCTCTCTT
146601 GGGGTCTGGA CTGGACCTTT TTCCAGTGAC AGAAAGCTGA GAAAGTTAGG
146651 CAATATGTAG CTCCAATAC CTGTGGCTTG TGCTCTGCTG GAGGACAGAG
146701 CCATCACTAT TTATGCATAG GAAGCCCCAG GACAGGATAT TGAATGGGTG
146751 GTCTAGGACC AAAAAGTCTG AGCTTCTTCC TGGTTTCAAA TAGGAAAAGT
146801 ACTTAATACT GCATTTCTATA GATGAGAAGC CAAAGACATT AAGTGGTTTG
146851 CTTAAGGACC ACAGAGTTCC TGCTTTCTAT CTAGTATACC ACCCTTTCCA
146901 TTTCCCCCAA AGTGTGTGTT TTCGGTGGTG GTAGGTAGAA GCAATTGACT
146951 TGTAAGAAAC AGAAAAACAT GTCAAAGGAA CTGGACTTTC AAAAGGCAGA
147001 GTCTTTGTCA TGTGTCTCTT TGCTAATTTT TGTGAACGTG TATAGCCAAA
147051 TTACTCCCAA GCTAGCCTTG ACCACAGGTT CCAGCTACTA TGGAAAACCC
147101 AAGCTATGTC CTCTTACCT CTCATTTTGT CTTTGTGCTA GGAGGTTTCA
147151 GTATGGTAGA CAGTGTGTTG ATTTACCAGC CAGACTGGAA ATCGTCAAAT
147201 CTACTTCTTT GACCACTTTG TTCATGTTGT AATGTAAACA CTATTTAGGC
147251 CTCTATGATA AACTATCAGA TTAGAAAAAA TACATAATAG TTTTAGGTGG
147301 ATCAGATGCC TTGTAAAATA CTTTAAACAT TTCCGTTATT TTTTCTGTC
147351 TGTAATATCA TACCTTCTAA ATGCTATTCT TTCTTAATAT TAAATTCAAA
147401 AAATAAACTT AGAATATGA AAATACAGCC TTGATAGGCA TTTAGGTCAA
147451 TTCTATGTCT TTGCTATTGT GAATAGTGCT ATAATGAACC TAAAATAAAA
147501 GTAAAAAAG AAGAAAAAAA GAAAATGCAA CCTTTGGGTT TGACAAATCA
147551 TTAGAATGGT GGGCAACTAC CAGAAAATTA GTGATCACAG AGATTAAATTG
147601 AAGTGAAATT TTGAAACATG AGACTTAATT TGTTGATGAA CTCTGAAGTG
147651 GTTAATTATT TTTTGCTTT TAGAAGATTA GACTGCAAA TTTTCAGCAC
147701 CAAAGGAAAT TTGTATTAT TTTTATTTG GCATGTATAT GTAAAAATAA
147751 ATTATACAGT CATCTTTTCA AAGCTCCTAC ACCAAACATT TAATTAGTCT
147801 TTGAGGTTGA ATTTGACAAT TCCCTCTGGC ATATGAGGAG TTAGTTGCAG
147851 AGAAGAAAGA CAGGATAAGA CTTATTATTT ACATTTGATA TGCATTAGTT
147901 GACTATAGCT GATTTAATCT AGTGAAAGTC ATGGGTAACC ATTATAACCA
147951 AATGAGAAAG TACAACCTGA ATGTTAAAGA AATTATCCCC CATTTAACTT
148001 CTTATATGTA ATGCTAATGA TATCTTGAC ATTAATTTTT GCCAGGAAC

```

FIGURE 3, page 47 of 141

148051 TCTTTTGTAC TCTAGCATTT GTTTTATATT TTATTTTTTA GCAACTCACA
148101 GCTGACTTTC AGAGCAGTGT TTTTTCCTAA GCTGGAATAG CCTGAGACTC
148151 TAGGGCCTGG GTCTACAAGG AGCATGACTC CCTACCCAC CATTGAGATG
148201 TGGAGAATGC AGTGAAGTAG GCCTTGGCTG CTTACCCACA TCCTGACCAG
148251 CTGTCACCTC TTCATTTCCCT GTTCAGCCAC TCTTTAAGCA ATCACTGAGC
148301 CCAATGCTCA GAGATAGCTC AGACCTGTAG GTGGTTGTGC TTTGCTTGCC
148351 TGTAGGAGCC CCACATGCCC TTTACAGTTC TGGGCTGTCT ATGACTTACG
148401 ATATCACCTC TTCTTTTTAA ATGTCCAAGT GGAAATAAAG TGATTTGAAC
148451 TTTGCTAATT AAATATGTTA TGTTTTTATT GTTTTAATTT TAAAAAGAAA
148501 ACCTCTACTC ACTCACTAAT TCCACTTTTA GATAGTTATC TGAAAGAAAA
148551 CCTTTACTCA CTCAGTAATT CCACTTTTAG ATAGTTATCT GAAATGCAT
148601 CTACAAGAAG ACCTGTTTAC AAATGTTTCT AGAAGTTTTA TTCATAAGTA
148651 CTCAAATAA AAAACAAGTC AAGTGTCCAT CAATAGGTGA AAGGATAAGC
148701 AAATTTGTAG TTTGTTGATG GAATATATAC TCTTTGACAC TGAAAAGGAA
148751 CACACACCAA TATATACAAC AATATAGATA AATACTTTTA AAATTATGTG
148801 AAGTGAAAGA AGCCACACGT AAAAGAGTTC ATACTGAATG ATTCCATTTT
148851 TAGGAGTTCT GGAACAGAA GTACTTATCT ATAGTAATAG AAATTAGGCC
148901 AGTGGTTGCC TGGGGTGGT AGTGGTGGGA GTTGACTCTA AAAGGGCACA
148951 TGGAAACCTT TTTTGTGAT AGAAAAGTTT GTAAGTTTGC TATCTTGATT
149001 GTGGTGATGG CTACCCAGAT GTGTAAATTT GTCAAACTC ATTGGACTCA
149051 ATACTTTAAA TTAGTGCAAT TTATTGTATA TAAATTATAC CTAAATAAAA
149101 TTGATAAATT AAAAAAATAT TAAAATATTC AGAAGAAACA ATGTAATGCT
149151 TAGCTGTGCT ATGTGTTAGC TAATGAATGG CCAAGAACGA TGTGAGTGAA
149201 GTCATGGAGA TAGAAAACAA TTGGGAAGAT CTTTGGGTAT CACCTGGGAC
149251 ACAAACTCCT TAATCCAGAA GGTGATCACA GGGTTTGAGA CTTTCTTCTA
149301 GCATCAGCTG AACAACGTTG TCTTCCACAA GGAGTGTTAA CAAAGCTTTG
149351 GGGTCCTTTC CAAGGAGGAA AGTTGGCTAT TTGGAGATAA GGGACAGGGA
149401 TCTTTTAGCT CCTCTCTCTT CAGTCTTTAT AGTTGGGGGT GGAGGTGCAC
149451 ACATCTGAGT AGCAGAGAGC CCTACCAGCA GATCTAAAAG GACCTAGTGC
149501 TCACATAAGG CACTGGAGCA TAATAACA AAAGGTGATA GCTCAGACTC
149551 CAATGCCCAG CCAAGATGG AGAAGCTGGT GGAGCTGCCT GGCTCTTAG
149601 TTCTCAGAAA AGAAGACCAA ACAATGCCA GGGGTACTT CCACATTCCT
149651 AGATCTTCCG TCACTTCTGG AGCTTTAGAT GTCTTCAAGA CTTGATTAT
149701 AAAGATAAAT TGATGGTGGT TTTATTTTCA AATTGTCACT TATTCCACTG
149751 AGTTACATTT GCATTTTATA ATAGTGTTTC CACCTGACTC TAATACTTGC
149801 TCTCAGGAAT AAAGATGCCT GCAGTTCTCA CTAATTTCTG AGTTCTAGAG
149851 GATAATTAGA ATGAATCTAA TACTGAATGA AGATGTGCTG ATTCTCCACC
149901 CTGAGGCATA TTTAATAATT TAGAGTGTTT CTTCTGTACG ACAAGTCACT
149951 AACTAAAATT TCAAAGATTA TATCCAATTT GAAAAATTAA GCTGGGTGCT
150001 GTCTAACACC TGCCCAACAA GCCACTTTGA CATGGCATCC TAAGCAAACG
150051 TAATATAAAT AGGGGGAATA TTAGTCCCAG AACGTCAGGT ATTCATGGGG
150101 AAAACCGACA CCCACGGACA TCTCAAATA AGTAAACCGC CTGGGAAGGC
150151 TATATGTCAT CCATGGATC ATCACTTAGC TAAATATAA TCATATAGTA
150201 GTTATTATAC TAAAGGTCAT GCTAATAAGG CAGAGGGCAT CCTTAAGTGG
150251 CCTTGCTTGG GTCATCATGG CTCAGATTTG GAACAAATCA ATTAAGCAGA
150301 AAATTAATA AGTATCAATC ATAGCTTTAA GGTTGGATAG AAACAAATGT
150351 AATAGAGTAA AACCTTATAG AATGTGTGTT TCAGACAGTG CTCTGCATAT
150401 ACCACCGTAT GGTTTTCCCT TAGTTGATGA ATTTATTTTC CATGCATGCA
150451 GGTTCACAG TTGTGCTCCA TACTTATGTG CTTACCACTT GGAGAACATT
150501 GTTATGATGG CCAAAGAAAG CTAAGCTGCC ATATGAAAGG GAATCTTTCA
150551 GATCTGCCTT TGAGTCCCTGA CTTTCCCATG TGATTGCACT GTGATTTTAA
150601 GGAACATAAT TTCTGTATC TGCAGTTTTT AAATTTGTTT TTCATCAATA
150651 AAATGCAGTT AGTAATACCA ATCTGAAAAA TTTACTGTAT TAAGTGAGAC
150701 AACATGTATT TGATATAACA CATATGTTAA CATACAGTAA CATACATGTC
150751 TGTTACTGTA TTTTCGCTCA TCAGTGACAG GAGCTATTAC TACCAAAACA
150801 GATATAGAAT GTTTAGATGG TGCTTATCAC CTCTTGCTA CTTGTTAGAA
150851 TCGGACTTAT CTTTAAAGAC CCAGCTCAA GACGTCCTCC TTGATTGAC
150901 GTCAGAAGAT GTCTCCTACC AGGACTCTTT GACTAATCTC CCTGATCATT
150951 TTTCTCCTTT CTAGAACAT ATCCTATGCT GCCTTACAGT ACTGAGGTTG
151001 TGAACCTGAC TGTTGCCCTA GCGTAGGTTG AAAAAGTGGG ATGTCTTTGT
151051 TAAACAAGCT TTGGAAGCA CTTTAAAAAG AATAGTAAGT AGTTATATTA
151101 TAAAATTAC AGACACAGGA TGAACAACAA CATACAAAA ACCTATTCAA
151151 ATATCACTCA CGTGAATACA GTCATGTACT GCTTAATGAC AGGAATATGT

FIGURE 3, page 48 of 141

```

151201 TCTGAGAAAT GTGTCATTAG GCAATTTTCAT CCTTAAGCAA ACATCAGAGA
151251 GTATACTTGC ACATACCTAG ATGTTTATAGC CTAATGCGCA TCTAGGCTCC
151301 ATGGTATAGC CTGTTGCTCC TGCACACAA ACCTGTACAG CATATTACTG
151351 TCCTGCATAT TGTAGGCAAT TGTAACACAG TGGTAAGTAT TTGTATATCT
151401 AAACACAGAA AATAGACAGT AAAAACACAA TATAAAAGAT GGTACACCTG
151451 TATAGGGCAC TTATGAATGG AGCTTGCAGG ACTGGAAGTT GCCATGGGTG
151501 AGTCAGTGAG TGAGTGGTGA GTGAATGTGA AGGTCTAGGA TATTCACTAC
151551 TGTTTACTAC TGTAGACTTT ATATATAAGC ACTGTATATA TAACACTTAG
151601 GCTATACTAA ATTTATTTTG AAAATATTTT TCTTCAACAG TAAATTAACC
151651 TCAGCTTACT GTAACTTTTT TACTTTATAC AATTTAATTT TAAAACTTTT
151701 TGATTATTTT ATAACACTTG GCTTAAAACA CAAACACATT GTACAGCTGT
151751 ACAAGAATAT TTTCTTTTTT ATATCATTCT ATAAGCATTT TCTATTTTTA
151801 ACATTAATTC TTTTAACTTT TGAATTCTTT GTTAAAAACG AAGTCACGAA
151851 CACACATATT AGCCTAGGCC TTCTGCCTTT CACCTCCATA TCTCGTCCCA
151901 CTGGGAGATC TCCATGGACA ATAACATGCA GGGAGCTGTC ACCTCCTATG
151951 ATAACAATGC CTTCTCTGG AATATCTCCT GAAGGTTTTA CAGTTAACAT
152001 TTTTAAATA AGTAGAAGGA GTATACTATA AAATAATGAT AATAGTATAG
152051 TATAGTAAAT ATGTAAAGTA GTAACATAAT TATGATTATA TTGTACATGC
152101 TTGTATGCCC TATACTTTTA TATGACTGAC AGTGCAGTAT GTGTGTTTAC
152151 ACTGCGTCAC TAGGTAATAG GAATTTTTTA GTTTAATTAT TATCTTATGG
152201 GACCACAACCT GTATATGTGG TTCGTTGTTG ACTGATACGT CATTATGCAG
152251 TGCATGACTG TACTTGTACT TTAAGATTGT TATGGCTTGA ATGCTGCTC
152301 TCAAAAACCT AGTTGTTGGC AGTGTGATAG TATTAAGAGG TGGGGTCATT
152351 AAGAGGCAAT TCACCTCATGA GGACTCCCTC CTTATGAATG GGATTAAGTG
152401 CCCTTATCAA AGGGCTTGAT GGAGTGAGTT CATCCCTCTT GTTCTTCTAC
152451 CTTCCACCAT GTGAGGACAC AGTGTTCCTT CACTGCAGAG GATCAAGCAA
152501 TAATACGCCA TGTTGGCAGC AGGGAGCAGC CCTTACCACA CAACCGAACC
152551 TGCTGTTGCC TTGATCTTGG ACTTCCCAGC CTCCAGGACT GTGAGAAATA
152601 AATTTATGTT CTTTATAAAAT TACCCAGTCC GTGGTATTTT GTGACAATAG
152651 CACAGATAGG CTAAGAAAAG GACAGAACTT GTACTGACAG TTTCTATGC
152701 AGATTTCAAG GAGAGCTTTA TCTGAAAAAT ATGAGCTGGA AGTAAGGAGT
152751 TGCACAACCTC ATAGTCATGA CAAGGACACT TAGTCTGTAT GCATGTGAGG
152801 AGTTTAAATA ATTGTATTTC ATGAAATTTT AGAGTGGGAA AAAAGCAGTA
152851 GCTCTAAATA TTTTATATAA TATGGGAACA TAAGTTTAAA TTTGTACTA
152901 AATTAACAAT GTATTATAAA TAGAAATTTA TCTGTTTGAC TTATACTCCT
152951 AATAGTTCAA CATCAAGTT TGATATTCTT ATTGGAATAA GAGTCAAGTC
153001 TTAAATTTT TAGGTTTCC TTACAATTAG ACATATACCA TATTTTCATCC
153051 AGTCTAAAAT ACACAGTTTT GCACATTTGA ACACCTCTGA AATGGAGATG
153101 CATCTTAAAA TAGACGGCAT ATCATAATTT CATGGACAGT AGTTTTATTA
153151 ATGATATATA ATATAATGAT TCATTTCAA ATTGATGGTG TCTTGATTTC
153201 TGTAAGTAC AATATTATAT TTCTCAATTG TATTGGTCAG GCTAGGCTAC
153251 ACTTGCTGCT GTAACAAATA CACCTATTGA CCTAGGTAAC AAGGGATTAA
153301 TAGCTCATTC CTATAAAGTC CTATGTGGGA AAGAATCTCT CAGGGCAGAT
153351 ATTCCCTGTG CAGTGACTAA GGACCAAGGC TTCTTCTATT TTATACCACC
153401 ACCATCTCAG CATTTGGCTT TCAATGTTCC CACAAGCAGC AGAAGTAGAT
153451 TGGAAGTAGC ACACCCACAC ATAAATTCTT CAGCTTGAAA ATTACTTCCT
153501 TGCAATTTCA TTGACTAAAA CTAGTCATGT GGCCCAACTT TCCACAAAGG
153551 GCCTGGGAAG TACAGTCTTT CCTGTGCCCC AGGAGGAGAG AATCAGATAT
153601 GGGTGAACAC TACTGATCTT ACCACAACAG TCTATCTTAG TTACCTGACT
153651 CTGAAATTAG GGTAATGAAC AAAACCCAAA TATATAATTG AATCATGTGA
153701 AATTTATGTT CCAATTAGAT AGAGAAACAA ATACCTTTAT TCTTTTACAA
153751 AATAATATAT TGACTTGTAC CAAAATGAAC TATTATAAAA TAGGCTTATT
153801 TCTTCATATT CTATCATAAA ACTGATGACA AAAACAATAT TTTATTTAGT
153851 TTTAAATTTT CTGATTAAAC CTA AAAAGCA AAATATAATT AAAAAAGGAG
153901 TGAGCTATAA ATCCCTTGTT ACCTAGGTCA GCAGGCGTAT TTGTTACAGC
153951 AGCAAGTGTA GCCTAGCCTG ACCAATACAA TTGAGAAATA TCATATTGTA
154001 CTTTACAGAA TCAAAGACAC CATCAATTTT GAGATGAATC ATTATATTAT
154051 ATATCATTAA TAAACTACT GTCCATGAAA TTATGATATG CCGTCTATTT
154101 TAAGATGCAT CTCCATTCA GAGGTGTCA AATGTGCAAT ATATGTGAGG
154151 CATTTATTAA GTTGGTTCTT GAATCTCTTA ATTCAGTCTA TAATATGTAA
154201 AATTCTATAT TGGGGCCATA TGAAGCCTTG CTA AAAGTGC TGGAGGACAG
154251 GGTATATATT GTAAGGCCAA TATTTACAGT CTTTCTTAG TCCTCAATTC
154301 TGCCAGCTAA CGAAAGTTAC TATTTGTAGGA AGAAGAATGG GCTCCAAAGA

```

FIGURE 3, page 49 of 141

154351	TGTCCTTAA	ATCCTGATGT	CCTAAGGCTG	TCCTAATCCT	TGGAACCTGT
154401	GAATATGTTA	AGTTACATGA	CAGAGGGGAA	TGAATTAAGG	TTACAGATGG
154451	AACTAAGGTT	GCTAATCAGA	TAGGGAGATT	ATTCTGATTA	TTTGGATGCT
154501	CTCAGTGCCA	CAAGGGTTCT	TAGAAGTAGA	AGAGGGAGGC	AGACAGGGGA
154551	GAACCAGAGA	GATGGCAGTG	AGACAAGGAA	TTGGCCCAAC	ATTGCTAGCT
154601	TTGAAGATGG	AGGAAGGAGA	CAATGAGCCA	AGGAAGACAG	GTGACCTTTA
154651	GAAGCTAGAA	AAGGGAAGGA	AATGTATTCT	TCCTCTTTGG	ATCCCCAGA
154701	AAGGAAGGCA	CCCTGCCAAC	AAGTGTATCT	TAGCTTGGTG	AGATCCATGT
154751	CAGACTTCTG	ATCTACAGAA	CTAAAAGATA	ACTTTGTGTT	GGCTGGGCAC
154801	AATGGCTCAC	GGCTGTAACT	CCAGCACTTT	GGGAGGCCAA	GGCGGGCAGA
154851	TCACAAGGTC	AGGATAGTGA	GACCATCCTG	GCTAACACGA	TGAAACCCCA
154901	TCTTTACTAA	AAATACAAAA	AATTAGCAGG	GTGTGTTGGC	GGCGCGCTGT
154951	AGTCCCAGCT	ACTTGGGAGG	CTGAGGCAGG	AGAATTGGCGT	GAACCTCAGGA
155001	GGCAGAACTT	GCAGTGAGCT	GAGATCGCAC	CACTGCACCT	CAGCCTGGGC
155051	GACAGAGCGA	GACTCCGCCT	CAAAAAAAAAA	AAAAAAAAAA	AAAGAAAAGA
155101	TAACTTTGTG	TTATGTTAA	TCACAAAATT	TGTGGTCATT	TGTCACAGTA
155151	GACATAGAAA	ACTAATACAG	CTATATTGGA	TTATGTTCTG	TTCCAGTCAA
155201	ATAACCACCA	TCTTTGATT	ATATGCTAGT	TTTTTTTGT	GAAGTGATTG
155251	AAATAGCTTG	CTTTGGTGTT	TAGGCCAGAC	TTTAATTTAG	AAATTTATGA
155301	TAGGCATTTT	AATTAATATT	CTTTGATTTT	TATAAAGGAA	CTTCCTATTT
155351	TGTTTTGTGA	CATTAAGGGC	CACCTCAGTA	CCAGATACTA	ATTGTTGTAA
155401	GTGAGAGATC	CCCTGAAGAT	ACCTGTCAAA	CTCTTTTCAT	TTTTGAAGTG
155451	AAATAGCACA	TCTCCAGAAA	AAAAAAGAAA	AAAAAAGAAA	AGAACCTTTC
155501	TGGCAAGTAA	CTATGGCAGC	AAAACCTAAT	ATCTTTTTCA	CTCATCAGTA
155551	ACAACATTTT	CAACTGACTT	CTCTTTTTCT	CTTGCTTCTA	AAAAACTCAA
155601	AAAAGGAAAA	ATAGGAAACC	ACTAAAAAGA	TCCAAAATGA	TCGTTGCATT
155651	TCATAATAGT	GTGTATAAGT	GTGAGCAGTA	TAATGAATTT	GACTTATTCT
155701	CTCCTTTATC	GTCAATTTTC	CACCTCTGTC	TTCAGGGAAG	TATGTGAAGT
155751	CGCCAGACTT	TATAACTCAC	CAGGTAGACT	TGCTCTGAT	CTTCGCAAGT
155801	GGGTTTCTTG	CAAACCCATC	TCATTGTTCT	GTGCACTGGC	ATCCACATGT
155851	GGGGATATAT	TTATATGAAT	GTGTAGTATA	AACATACCTA	CCTACCTTCA
155901	CAGCTAACCT	TGATGATCTT	TTCTGCTAA	CCCCTTCATT	TGTCTGAATT
155951	TTTTTTCTGG	CCAAGGCTCG	TTTAAATTAT	TAATGGGAGT	TCTTCTTACT
156001	ATTGAAGATT	AGCTGGCAAA	GTAAATATTT	GTAGGTGAGT	TTAAGATGCC
156051	TGCAGTCTTT	CATTGCATGC	ATTGGCGCCT	GGGCATTTTG	GGTTGTAGAA
156101	ATCAAAGAGA	CTTTACCCCT	TTTTATATCT	CAGATTGATT	TTCTCTTTTG
156151	ACTCTAGAA	AAATGAAAAA	ACTCAACCCT	TCTTCCAGCT	CAATTCCACA
156201	TGACCTGTTT	TCTTGGCTTC	AAATAGCATA	AAGCTAAATT	AACCTGCCTC
156251	TTTTCTTCCA	CCCTCTACCT	CCCAACAATC	CATTTTAAGA	TATAATAATT
156301	TGACAAATTG	CATAAGCAGT	TGCTTATGAG	CATATGGTGT	CTAGTCAAA
156351	AAATTTAGCC	TCCTTTTATT	TGTGAGATTA	TACATTTTGA	ACAGGACCAA
156401	CCTTTGTGTG	TTTTTGACAT	CCCAATGAA	AAATTTTAGT	GGTATACTTG
156451	AGAGGGCTGA	AAGGTGACTA	CCGATTAAAG	AAGAGCAGAT	TTTAGAAAAA
156501	ATTTTAAAT	GTTCCTCTTG	GCCCTTTAG	CTGTGTGCCA	TGTTTGAGGA
156551	GAGTAGGTCA	TGTCCTGAC	TATGCTAAG	TCTTACAGG	CCAACCTCTT
156601	TTTTTAAAT	TAAATAAAAT	TTAAAGTTCT	GGGATATGTG	TGCAGGATGT
156651	GCAGGTTTGT	TACATAAGTA	AACATGTGCC	ATGGTGGTTT	ATGGCACCTG
156701	TCAACCCATC	ACCTGGGTAT	TCAACCCCAT	ATGCATTAGC	TATTTATCCT
156751	GATPCTCTGC	CTCCCCCTGG	CCCCATGACA	GGCCCCAGTG	TGTGTTTTTC
156801	CCCTCCCTGT	TGTCATGTGT	TCTCATTGCT	CAGCTCCAGG	TTATAAGTGA
156851	GAACATGTGG	TGTTTGGTTT	TCTGTTCCCT	GTGTTAGTTT	CTCAGGATA
156901	ATGGCTTCCA	GCTCCATCTA	TGTCCCTGCA	AAGGACATGA	CCTCATTTCT
156951	TTTTATGGCT	GCATAGTATT	CCATGGTGTA	TATGTATCAC	ATTTTCTTTA
157001	TCCAGTCTAT	CACTGATGGA	CATTTGGGTT	GATTCCATGT	CTTTGCTATT
157051	GTGAATAGTG	TCGCAATAAA	CATACATGTG	CATGTACTCT	TATAACGAAA
157101	TGATTATATAT	CTTTTGGGT	ATATACTGGT	ATAGGGATGT	CTGGGTCAAA
157151	TGGTATTTCT	GGTTCTAGGC	CTTTGAGGAA	TACCCACACT	GTCTCCACA
157201	ATGGTTGTAC	TAATTTGTAT	TCCCACCAAC	AGTGTAAGAA	CATTCCTATT
157251	TCCCCACAGC	CTTGCCAGCA	TCTGTTGTTT	CTCGACTTTT	TATAATCGCA
157301	GAGGCCATCT	TCTTACCTGT	CCCTAGGAAC	TCCACGATTC	TTTGGTGCCA
157351	TCATGATGTC	ATTCCGATGCC	TGCCCCCTTA	CTTTTGTCTC	TCAGTAAATC
157401	ATATTCTCTAT	AATCATTGCT	CTCTCAGCTC	AAAATTCATC	CCAGCAGGCA
157451	TCATGGTAAA	AACATGTATT	TTCCATTATA	TTGGCAATAT	TCTATGATTC

157501 AAAAATGTCA GAGGAAGTAC TCACAGTATA GGAATGTATC ATACCACAGC
157551 AACTTAGAGT CAATAAACTA GTTCTTTGTT ACTCAAAGTG TGACCTGTGG
157601 ATTACAATCA GTAGCATCCT GAGAAATTTGT TAGAAATGCA GAATCTCGGA
157651 CTCACCTTCAG ACTTCTCTAG TCAGAAGATG CATTTTAAAC AACATCTCAG
157701 TGATTCTGAG GCACATTAAA GTTTGAAAAG GACTGAGCTA GACTCTAAAC
157751 CCAAAAGAGT ATGGACCATG TCCGTCTTGC TCACCATTTT ATTCCTACCT
157801 ACTTATACAG TAACTAGTTC AGAGTTGGTG TTGCTAAGTA TTTGCTGAAT
157851 GAATGACTAA ACCTAGGGAA AAATCCTATT AAGAACACGA ATGCTTTTTA
157901 TCTTAAACAG CATACATTTT ACGCAGAGAT TAATTCAGTT GGGGAAGCAG
157951 TAGAATAACA AGTTGCCAGG AGAGGATAAG TTGTGTGCAT CACTGTTCAT
158001 CTATAAAATT TTCTCTTTC TTCTTAAAGG AGACTGTAAT CTAATTTTAC
158051 TAGACGAATA CTGGAAAAAT GAAAAATAAA GGAATTTCTG AAATAAGGAA
158101 ATAGAATCCT CCATGCATAC TTTTGTAGTC CCCTAGCTGT TGCATCTTTC
158151 TTTATGGATA CCCCTACATT TAAATAATAT TTTAGGTAAG TCACCAACAG
158201 TTTAAAAATA TGGTTTGTTC TTCTGCAGTA ACTATAGAAT AGTATTTAAT
158251 TTAATAGAAA TGGCCAGCCA TCCTTTAATA GAAGGTCAC CAGAGTAATC
158301 CTCCCAAGGC TCCTTGGGAT GTGTCCTGCC TAAGAACTAC TGGGAATTAA
158351 AGGGTTGTAT GAAGTATAGT CTGTATTACA GGTGCACACT TGTTCCTTTT
158401 GTTTGTATCA GTTAGTCTCC CCATGGAATT CATGACAGCA CTTTCCATAT
158451 GACAGAACGT TAGCAAATAT TGGTTGAATC ACTATTTTTT AATAACAGGC
158501 CTAGTAGGGC CATTACGTGA AAATATTTTT TTAGTGGTTG TGTGACTGG
158551 ATCCTCTGGA AAGCAGATAA TAGGACAGAG TTAGAAGTAT AAGAGCTGTA
158601 ATAGGGTAAA GTCTGTTGAA AGAAAAGTGA TAGAAAGATT GGGAGTAGGC
158651 AGAGAACCCT CAGACTATGA TGCAGGTCTG ACACCTGTGA AAGGCAAGCA
158701 GGAAGGAAAA CAGACTGGGC AAGAAGAGTC TCAGACAGCA CTGGAGCTCT
158751 GAGACAGCCT CATTCAGCCC AATGGGTGGC TTTGAACCAG CTTTACTGG
158801 TTCAAAGATT TCCCATAGAG GAATCCCATTA TTGGACAGAA ATGCTATTCC
158851 CTACTGTCCC CCACCAACTC AAATGCTCAA CTGATCCCCA ATATCTTACA
158901 GTTTGAGGCG TCGGTTTCC TGCATGCTTG GCAGTAATC ATCAAATCT
158951 TGAAAGACCT GAGAAGCAGA CTTCCACAGA TGATTCATAG ATAGTGGTTC
159001 CTTTGAGCCA TTCCATATGC TTGAGATGGT AAAAGAGTAT TTTGATAACA
159051 GTCTATAATT CAGTAGTTTT CTCTGACTTA AAGTAACTGT ACCTCCAATA
159101 TGTTCAAAGT AAGAATGACT AAAATTTCTG GAATATTCGT ACACATTTCA
159151 GAAAAATCCA CTAAACTGAT GGCCACTGGT ATACTTTAAA GAGATTTGGG
159201 GCCAGACTTT GTCTTTTCTT TACTTATGGC ATTTACCAAC TATGTGGACC
159251 TGGACAAAAA ATTTAATATT CCCAAGCCTC AGTTTTCTCA TCTGTATAAT
159301 GGAATAATC ACACCCATTT TGCAGGGGTT TAGTGAGGAA CAAATAAGAT
159351 GATACACAAA GCTGAGCACA GCACGTGAAA CAGAAAGTAC ACAGCAATTT
159401 TTTACTAAAG GAGTACAATC AGTGTCAAAG CAAGTTGCAA TATTTTCTCA
159451 AGTTTCACAT AAAACCTTTG AAATGATGAT CAATAGTATT TCAACTTTAA
159501 TCACCAGGAA ACCTTATAAT TTTAGCCCAT AAACACCTTC ACTATATGAA
159551 TTAAGAATAA TTAGAATAC AGTATTTTTA TTTGCTATTG TTTTGGCTT
159601 TATGAAAAAT ATAAATCAC TTTGGCTGAT TAGTTCTACA TATCAAATGA
159651 TGGTCTTAAT GATGCCTATC TGGGCCAGTG AACTTAGTAC CAAAATAAAT
159701 TATCATCTTT GTCAGGTCTG TAGACAGCCC CCAGAATTAG AGCCAAGGCC
159751 CTACAAATGT GTATCAAGAT AATGTAGGGA GAGTGCAGCA AACTGTTTAT
159801 GACCTAATTC ACGCCAAGGA AGGCATTTCT AAATGGGCGC CCTCTCTGTG
159851 GTGCATCAGG GATACCACTG TTATATCCAG AAGTAGAACC TGGGACAAAG
159901 TTCTTTCTCT AGAAGACGCT CCTTTGCCAG CCGTTTAGAG CCCATACACT
159951 AGCAGTTAAA ATTTCCATCT ATTTTCTCTA AGTACATTAT GAGTGTAAAT
160001 ATATTTTGTG CTAAGGAGCA TAAGAAGGAC CAGAATATGT ATCCATTTTT
160051 CCATTGTAGT CTCATTTGAG ATTTAGGCCA AACTCAATAG ATTAATAATAT
160101 AGAGCTTGGT AGGCATAACC ATGACTTTTG CAATGGAAAT ATTTAGGTAA
160151 TACTTGTGGC TTATTTTAAAT GTAATCCTCT GCTTTGGGTT TATAATAAAA
160201 TCAGGTAAAT TTCTGTATC ATAGGGATTG GTTATCCACT CTACCTCAA
160251 GGCTGTATGT ATAAGTGAAC TCCTGGTTTT AGACAAATTG CTTTGAATTA
160301 CTTCCATTAT TTTCTCCTTT AGTTGGAATA TGAAGAAAT T CAGCAGGCC
160351 TTTTTTTCAT AGCATAGATT TTGAAGACAA GGAAGTCT GTGCTTGT
160401 CTGGTGCTGT GCGTTTGAGG AGCACACACT GAAAGCAATT TGTCTAGAAG
160451 TATGCTGTCT GATTTGAAAT CCACTAGCCA CATGTGGTTA CTTTAAATTA
160501 ATTAAGTTA AATAACAATTA AAAATCTGTT CCTCAGTCAC ATTAGTCACA
160551 TTTCAAGTGC TTAATAATTA CACGTGGTTA GTGGATACTG TGTGGACAG
160601 CATACTTCTA GAACATTGCA TCATCGAAGA AAGTCTTATT GGGCAGCACT

FIGURE 3, page 51 of 141

160651 GTTCCAGAGT AAAATCTAAG TATCTAAATT TTTAAAAAGC TCCACAGGTG
 160701 ATTCTGGTGG GAAACCTGTT TCAAAAATCA CTATAACTAC TATTTAAATGT
 160751 TGATCTTATA TTTCAACTTA AAACCTACAA AAGATTCTAT TTCCCTCATT
 160801 TTCCAGTTCT TCCTTGGAAAT GAGGGATTGG TTTACTGAAA TTCTCAAATA
 160851 CTGACAACAT GTGTCAATAA CTCTTCTCCT TTTTCATAGA GAAGGACACT
 160901 GAAGTGCAAA GAGGTAAAAG ATGAAGGAGA TATTGTTGTA CTGGACCCAG
 160951 CCCCATCTGC AATTTTTTTT CAGAGGTTTC TCTTCTATGC TGTGACAGCT
 161001 TTCCACTAAA TAGAAGAAAT GAGTACAGGT GTTTTGGTTG AAGTCCTACT
 161051 TCCAGAGCAT ATTAGGACCA AACACTGTGA TACTATTATG CTGCCTCAGA
 161101 CCATAGTGTA GCAAGTGAAG GCCCCAAAAG TCACACAGAT TGAATAATAA
 161151 GTATTTTCAGA GTTTACCTAA TAATAATTCC TTCCACAGT GAAAGACAAA
 161201 GCTTACATTT ATTAATAACC AGTTGATCAT GTTAATGAGT CAGAAGTGT
 161251 CAAACCAGCT GATTTTACAA GACTGAAGAG AAAATACAAT TTAATTAGAG
 161301 ATGGTCAGGT AAAATAGCTA ACAGTCATTA GTGACATCTA GGAGCAAATA
 161351 AACAAACCTT GAGTTAATGA AGGGTACACA GGCAGATAGA GGCTTGACAC
 161401 TGGGACTAGA GCTGGCCTGG AGTGCCATAG TGTGAGTGTG TCTCTTGTGT
 161451 GTAGTTGTGT AATGAGCTGT TTCTTACATA GCCTGGTACA TAGAAGTGCA
 161501 TTTTGTGAGT TCATGTCTCC AAAGTGCTTG TGTGGCTTAA ACAATGTCCA
 161551 TTTATTTTGG CTCCTTTGTG ATTAAATTTT ATGATTTTAA GGTGATAAGA
 161601 AAATAGTCAG TGGTATTTCT TTTTCCTCTA AAAGATTAT TATTAGATTG
 161651 GTGCAAAAGC AATTTCAATT TTTGCCATTG AAAGTAATGG CAAAAACCGC
 161701 AATTACTTTT GCACTAACCT AGTATAATAA ACTTTATTTT CTTAAGTGGC
 161751 AGTTTGCCTC TTTGAGCTTC AAAAGTGGTT ATCTTATGTG GCTCTGTAGA
 161801 AATCTCTTCA AATTTACCTG TTTTCTTCTT TCTGGGCTTC CTTTATAGAA
 161851 TTCTGGAGTC CCTTCTTTTA GGAATTTTAC ATTGCTGTGA TCCTTGTACT
 161901 TTGTAAGTAC CATTATATCC TTGCACCTTT CAATCCTAAT TGATTTTCCT
 161951 GCTCCTAGGC AATTGCCTTT CATATCCTTT AGAAAAAGCA TTCCCTGAGC
 162001 ACCACTTTTA TCTTTCATCA ACAGTCAATC TTCAACAAAT ATTTATCAGG
 162051 CATCCATTCT CTGAGAGAAA GGAATCCAG TAGTGAGCAA GACAGACTTG
 162101 GTTCTGCCCT ATAGAGCCTA CAGTGAAGTT TTCTCTACC CCAAAGTGT
 162151 TCATTACTTC CTGTAGTGAG TTGAATTATG ACCCCCCAAA GATATGTCTG
 162201 CTTGGAACCT CAGAAGGTGA CCTTATTTGG AATAAAGATC TTTGCAGATA
 162251 AAATTAAGGT AAGGATCTTC GGGGGAGATC ACCCTGGATT ACAGTGGGCC
 162301 CTGAATCCAG TGACAAGTCC TCATCAGAGA AGAGAAAATA AAACAGATAG
 162351 AGAGATATAT TAATACAAAG AAGATGATGT GAAGAGATTG TAGTAATGCA
 162401 CCTACAAAGC AAGGAAGACC AAGGATTGCC AACAGCCACC AGAAGCTAGG
 162451 AAGGAGGGGA GGCCTGGAAC AGATTCTTCC TCAGAGCTTC CAGAAGGAAC
 162501 CAACCCTGCC AGTGCCCTGA TTTTGGACTT CTGACCTCCA GAATTGTGAG
 162551 AGAATAAATT TCTGTGTTT TAAGTACCA AATTGTGGG ACTTCATTAC
 162601 AGCAGGCCTA GGAACATAA ACACTTCTTG TCTTAGTCTG TTCAGGCTGT
 162651 TGTAACAAAA TACCATAGAC TAGGTGGCTT ATAAACAACA GAAATTTATT
 162701 TATTACCATT TTGGAGACTG GGAAATCCAA CATCAATGCA TTGGCAGATT
 162751 CAGTGTCTGG CAAGGGCCTA TTTTCTGGTT CATAGATGAT GACTTCTCAC
 162801 TGCATCTTTT ATAAGGGTAC TAATCCCATT CATGAAGCCT CCATTCTCAC
 162851 AATCTCATCA CCCCTCAAAG GCTCCAACCT CTAATATCAT CACATTGGTG
 162901 ATTACGTTTC AACATATCAA TTTAGGGGAG ACACAAACAT TAAACCCAAA
 162951 CCATTTCCCT TATTTACTTT AAAACATAA ACCCTTTTAT CTCATTTTGT
 163001 TATAGCAGTC AGAGAACAG GTTATTTAGG CAGACTGTCT GGGTTATAAT
 163051 TCTATCTTTG CCAATCACTA TGGCATTTGG GTCAAATGCC ATAAACCTCT
 163101 GTGCCTCAGT TTCTTCATCT GTTAGATGGA AATCACAATG ATATTGATGT
 163151 CATAGCATTA CTGTGAGGAA TTTAAAAGCA CTTAGAGAAG TTGCTGGAAT
 163201 GTAGTGATTA ATAATTATTT TACTACTATT TTAATAATTT TCATTATTGT
 163251 TAAAGGCTTA CAGAATATTT CACAACCAGT CCAACAGAA ATGTTTTTTC
 163301 TAATTGCTCA TTACCGTAA GACTTTATAT CTCTACTATT TTTAATCACA
 163351 TATAGCCTTG TGATTGTATT TAACCTTACA CATCGATGTA TAGATCCATA
 163401 AATATTTACT GAGAACTGC TAAGTTCAAG GTATTTTGCT AGTCATTTTG
 163451 GGAACTTGA GCTAGAAATT ATTTTTTTAA AGAAGCAAAA ATTCTTTAGC
 163501 AGCAAATGAA CTTATTCATG CTCTCAAAAA CTACTGTTCT AGCACTCACA
 163551 TGTGCCCCGG ACTGTCCTGT GCACTGAGGA TTCAGGAGTG AACAAAGCAG
 163601 ACACAAATCC CTGCCTCCAT GGGAGCCTCC ATTTCAACTGG GGGCGATGGA
 163651 AAATAAACAG ACAAAATATG TGGAGGTTGG GCTGGTGGGA GGTATTTGGA
 163701 TCATAGAGGC AGATCCCTCA TGAATGGCTT AATGTCATCC CTAAGTAAT
 163751 GAGTGATTTT TCACTTGATG AGTTCAGATG ATATCTGGTT GTTTAAAAGA

FIGURE 3, page 52 of 141

```

163801 GTGTAGCTTC TTCCCCCTTC TTGTTCCCTT CTGTTGCTTC CTGTCTCACC
163851 ATGTGACACC CACTCCCCCT TCACCTTCTG CTATGATTTT AAGCTTCCTG
163901 AGGCCCTCAC CAGAAGTGGA CGCTGGCACA ACACTTGCTG TACAGCCTGC
163951 AGAACCCTCA GCCAAAATAA ACCTCTTTTC TTTATAAATT ACCCATCCTC
164001 AGGTATTCTT TATAATTATA GTGATACAAG TGGACTAATA CGCTATGGTA
164051 AAAAGTTTATG TGGGGCATTG AATCTCTTAA TCCAGGGTAA AATTAGAAGA
164101 TAATCTTCCA ATTCTGAAGA CTAAAAGATC TCTAGAAATT ATGATTTTCAG
164151 AACAAAATAT AATTATTGTA AATATTACAA CATTTAACAA CATAAAAATA
164201 ACATGTCACC AAAATTGGGA GGTATGGAAA GGTGAGTTGG AAAAAAGCCT
164251 TAGTGTACAG ACTTCTTTAA CAGCAGGAAA TCAATTAATA GTATCTAAAA
164301 GTGAAACACA TAGCCAATAA AAGATACAAT GACTGCAGCC TCTTCACATT
164351 GTTATAATTA TTATTCTTAT CCTTACAGAG GTATGTTATT AACTAATATC
164401 TCTTGTGGTA AAGGAACAAT TATCTAAAGT TCAGCAACTA CTCAGTTTCA
164451 GTTTTTTCTT TGATAATTTC AAAAAATACA TTTAATACCT AGAAAAAATA
164501 ATACTGTATT GATTTCTCAT TGCCGCTGTA ACAAATAATC ACAAACCTAG
164551 TGGCTTAAGC AATGCAAATG GACTCTCTTA CAGCTCTGGA GATTAAAAAGT
164601 CCAAGATTGG TCTCACTGGG CTAAAATCAA GATGTCACGT GCCTGCATTC
164651 CTTCTGGAGG CTCTAGTGAC CTTGCTGTTT CCAGCTCATA GAGCTCCTGC
164701 ATTCCTGGTT TGTGCCCTCC TTTCTCTATT TTCAAAGCTA GCAACACTGG
164751 ACCAAGCCCT TCTGATGCTG CCATCTCTCT GGTTCCTCCT CTTCTGTGCT
164801 GTGCCCTCTT CTATTTTAA GGACTCTTAT AATTATATTG GGCCCAACCA
164851 GGTAACTCAG ATGATCTCC CTATTTTAA GGCAGCTAAT TAACAATCTT
164901 AATTCTATCA ATCTTAACTC TGCTTTGCCA TGTAAGATAA CATATTCAAA
164951 AACTCTGGGG ATTAGGATGT GAACATTGTT TGGGGGTTAT TATTCTGCCT
165001 ACTACAAATA CTCTGAATTC TGATAAAAAA AATACAATGT TTA AAAAGAG
165051 AGTTAAGGAC AGTCTTTTCA ACAAATGATA TTAGGAAGAC TGGATATCTC
165101 ATGCAAAAGA ATAAAGCTAG ACCCTTACCT CATACAAAAA ATTA AAAATTA
165151 AAATAGATCA AAAACCTAAA ACTATAAAAA CACATAGAAG AAAGCTCATG
165201 ACATTGGATA TGACAGTAAT TTATTGATAT GACACCAAAA GTACCAGCAA
165251 CAAAAGAAAA CATAAACATG GATTTTATCA AAATGAGAAA TTTTATGTA
165301 TCAAAGAACA GTATCAACAT AGTAAAGTGG CAACCCACAG AACGGGAGAG
165351 AATATTTGCA AAGCACATAT CCAATAAGGG ATTAATATCC AGAATATATA
165401 AAGAACTCTT GAAAACAACA ACAAATCAAA CAGCCCAATT AAAAAATGGA
165451 CAAAAGATTT GAATAGAAAT TTCTCCAAAG AAGATATACA GATGGCCAAT
165501 AAGCACATAA AATGATGCTC CATATCACTA ATCACTAGGA AAATGCAATT
165551 AAAAATCACA ATGAGATACG ACTTTACACC CATTAGAATG GCAACTATCA
165601 AAAAACAAAA TAACAAATGT TGGCCAGCAT GTGGTGAAAT TGGAAACCTT
165651 ATGCACTGCT GGTGGGAATG TTAAGATGAG GTAGCTGCTG TATAAACACAG
165701 TATGGTGATT CGTCAAAAAA TTAAACATGG AATTACCATA TTTCCAGCA
165751 GTTCCACATG TGATTATATA CCCTCCAAAA TTGAAAGCAG GGTCTCAAAAG
165801 AGATATTTGT ATACCGATGT TCACAGCAGC ACTATTCACC ATAGCCAAAA
165851 GGTGAAAAACA ATCAAAATGT CCATTGATGG ATGAATGGAT AAACAAAGTA
165901 TAACATACAT ACAATGGAAT ATTATTACAG CTTGAAAAGG AAGAAAATTC
165951 TGATACATGC CACCATGTAA TGAACCTTGA AGACATTATG CTACATGCAA
166001 TAAGCCAGAC ACAAGGGGAC AAATATTGCA TAATTCTGCT TTAATGAGCT
166051 ACGTATAGCA GCCAAAATCA TAGAGACAGA AAGTAGAACT GTGGTTGTCA
166101 GGGTCTTGGG GGAAGGAAGT AATGGGGAGT TATTGTTTCA TGGTACAGAG
166151 TTTCCATTTG GGAAGATAAA AAGTTCTGGA CAGGGATGGT GGTGATGGTT
166201 GCACAACAGT GTGATGGTGT GGTAATCGGC TGGTGTCCCC AGCTACTGAA
166251 TAACTCTAG GTTAGCAGCT TTCAAACCTT TTGGCACCAG GACACCTTAA
166301 CACGCTTAAA AATTGCTTGG GACACTGAAG AGCTTTTGTT TACATGGTTA
166351 TATCTATAGA TATATACCGT ATTAGAAAGT AAAACAGAAT TTA AAAATAG
166401 TCACTTAAAA ATAACAGTAA TAAATCTATA CATATTAACA TAAATTGCAT
166451 ACTTATCATG AAAGTTAACC ATGTTTCCCA AAATAAAAAA TTTGTTTAAA
166501 GAAATGGTGT TAGTTTACAT TTTTACCTTT TTTTACGCGA CTAGCCTAAG
166551 AGAAGGCAGT GGTAGTCTCA TATCTGCTTT GTATTTAGTC TATTGTGATA
166601 TTACATGCCA TATAGCCTTT GGAAACTGT CTATTAATGA TAGGACAAGA
166651 GTGAAAAAGG CAAATAACAT ATTGGTATTG TTAGAGTTTG GACTTCCTGA
166701 GTCTCAGACA CTTCCAGGGG TTCCTGGACC ACTGTTTGAG AACTTCTATT
166751 CTAGGCATAA AATGACACTG CAAGAGCTAG CATTAATAT TACAGGATAT
166801 CATGAATAAT TTCTCAATT GTTCTGCACT ATTAACAAT TTAATAAAC
166851 TGGAAAAGGA ATAATGAAGC AATAGGAATC CATTCATAA ATAGGGTATG
166901 TAAGGTAAAA GCCCTACTTT ATTTGAATTT CATGGGTGTG AAATCATTA

```

FIGURE 3, page 53 of 141

166951 TAAACAGAAT TAATGTTTTC AGTGTTATTG TAATGATCAT AAAATTCTAC
167001 ATTCTTACTG AGATTATGCA CTTTTATGCT TTAATAGATA TCATTTTATG
167051 TGCTAAGTAG GTAGGTGCAA GATCTTGAAA TTGTTGGGGG GCCTCCTATG
167101 GGGATAATTG TGTGATGAAG TACAATCATT TACTTAAATA TTTCTCCCAA
167151 GAGTTTGAGA GTTTCTAAAT GAATCAGCCA AATGCCTGGC TCCAGCATTC
167201 ACTAGGCACA GCAGTTTTTC ATCACTGAAG AATCTCAAAT AAGATGCAAT
167251 TGCCTGATAA ATAATTTTGT GTTACTTGTC AACTTTTCAA AAAAATAGTC
167301 CTTGGAAAGC TGTAATATCA GCAAATGCAA TCAACACATT ACAGCAAGTT
167351 GATTTGCAGG TTTATCGTCA TGGAAATAAA ACTTTTCAAG ACTGGGAGGT
167401 ATGGTGACAG TGAAATGTTT TTCTGCCCCT AGTGGCATGG ATTTTCAAGA
167451 ATATCTTTAG ATGGATTGCT CTATGTCAGC ATTGACAAAT TGCAAGTATA
167501 GTTTTATTTT AGTTTTTCCA GTTATATTCT TAAATGAATG TATTCCTTTT
167551 GTTGTTTAAT TTTCTCTTGT AAAGATATAT AGTTATTTT AGTCGAATAG
167601 CTTATGAAAA ATTAGGTGTA TTTGACAAAG AACTTTAATG TACAATTGGA
167651 ATAAATGCAG TTCTAGTTGA ATGTACAGCA ATAGTATGAT GGGCCCAAAAT
167701 TTATATTTCT ATATATATGC ACCTCTTCCA TTGTCAAGAT TTATTACATC
167751 CTAGAGAGTT TTCTAGGTGT TTTCAATAGG ATCCTATAAA TTCAGAACTT
167801 GGAGTCAGAA ATGCATAATA TTTCTTACT TCAACATTGA TAATGTTTCT
167851 CTTCCCACT GTTCAAAATA GTCATTTTCA TTTTTTGTAGT GAAGCCACAC
167901 AATATGTACA CTATTTACAT TGTTTTTATA AATTTATATT TTATAATTAA
167951 ATAATTATCT CAACATTTTA ACTGTGAAT TTGTGTTTTA AATTGAGTTT
168001 TAACAAATGA TTAGGAGAAA CTACAACATT TATTAAATAC AAAATATATT
168051 TTCCCCTTTT ATTTTTCTAA GAACTGTCA TCCTACCGAT CATGCAACTG
168101 AATGCATCTT TTCAAGTTTG TTTTCTTATA TAGGAAATAT AAAGCAAGAA
168151 GTCTGCATGG TATAGTAAGA ATCAAGAGAT ACAGAGTGAA AAGATCTGAG
168201 GTTGAATCTA GCCTTCCTAC ACTGGCTGTG TGATGTCAGA CAAGTTCTGA
168251 AACTTTCCCA AGTTTCAACA CTGTCATCTA TAACATGGAT TCTGAGGTAC
168301 TATTACCAGG CTGCTCATGG TAATGAGCGT GGTAAAGAACC TCCAGTTGCC
168351 CAACGCTGAG GAGCCCTCAT CTCATCTCAA GTGCTGCATT TGCCTCCAGC
168401 TAGTCTCTCG CCCGCAACGA GTTCATTCTC TACATGCCTA CCAAAGTGAT
168451 CTTTTAAAAA TGTAAAGCAG AGTTTGCCAT TGCTTGCTTG AAACCTCTAT
168501 TAGCTTTCTG TTGTGTGTAG GATATACAAC AGAAAACTT TCACGTGGCC
168551 TATAAGGCCC CTGCCTGCTT GCTCTTCCCC ACCCCTCCTC CAACCTCACC
168601 CCATGCTACT ACACCTCCATC TCACTCCTGT TATGGTGACC AGCCATCCCA
168651 GTTTGCTGTA GATTTTCTTA GTTTAAGCAG TGAACAACAG AATGATTGCC
168701 CACTAGACTC CTGATAGTCC AGCCATATTG TTCTCTGGGT GTGCCACAT
168751 CTTTCCCATC TTTGAAATGT CTGTTTGTCT TGGAAGCCAC ATCATATGCC
168801 CTCACCATGT ACCTAGTTCA TGCCTATCCA TCCTTCAGGC CTCAGTTTAA
168851 AGGGCCTATT TGCAGAGAAAT CCTTCCCTGA GTCACAGATA TAAATTAGAT
168901 CTCATGTGTT ATTCTTATAT TAGCACCCGC AGGGCTACTG CATAAGTTG
168951 TGCCTGCTGT GTGCTGCACA ACATCAGGGA CCTCCATAGA TGATGTGAAG
169001 GTGGTCCCCG GAGTTGTACC ATGAGTTGAT GCTGAAACAG TTCTTTTCTT
169051 TTATAGCACC TTTGTACAGT GTGGTACATA TAATGTCTAC AAATTGTATA
169101 TATAAAGAAT ATATATTTCA GAATATATAT ATATATATAT ATATATATAT
169151 ATATAAAATT GAAGAAATTT TTATACACCC TATTGGTATG TAAGTTTCAT
169201 AAGTGTAGGA GCTCTGTCAA TTTTGATAAT TTTTATACCC ATTAACCGTA
169251 CAGTTAGTTA TTTGTAAAA GCGTCCGATA AATACTTGCT TAATGAATGA
169301 ATGGGAGCGT ATTTTATGTG GGTGTTGGTA CTATTATATG TGATAATATA
169351 TTGAAAGTCC TTTGTAAAGT ATTATTATTT ATGATAAATA TTAAATAGAA
169401 TATGAAAAAT GATTATTAGT ACAATATCTA GGTCTACTG TGATATAAAA
169451 CTCTTAAATG TCTTTTCAA TACTCTATTA GCAGTCTTA AGATTTTCCA
169501 GAGATATGCA ATGATAAGCA GATCAATGGA GCAAAGTAAA GAATCCAGAA
169551 CATTGCCTAA ATATGAGTTT AGTATATACA AATGCATTGT TTTATTTAGT
169601 GAAGAAAGAA GACATATTTA AATAAGTAGT CTTGGAAAAA TTGCCTGTTT
169651 GGAAAAAATA TAGATTCTTA CTGTATAACA CACACAAAAA TAAATTTTCA
169701 TGAATTAAAA ATTTAAATAT TTAAGATATG AAACAAATAA TAAAGAAGA
169751 TATTGAAGAA TAACTTCATA TTCTTGAGT AAGGAATTT TTTATAATTA
169801 TGAAATAAAC CCAGAAGTCA TAAAAGACTT ACAGAATTGC CTATTTAAAA
169851 ATGCGAAATT TCTTTTCTCT TTTTCTTTT TTTTGTAGAC AGTGTCTCAC
169901 TCTGCCACAC AAGCTGGAGT AGAGTGGCAT GATCTTGGCT CACTACAACC
169951 TCCACTTCCC TGGTTCAAGT GATTCTCCTG CCTCAGCCTC CTGAGTAGCT
170001 GGGACTACAG GTGGTGCAC CACGCTGGGC TAATTTTGT ATTTTATAGTA
170051 GAAATGGGGT TTCACCATAT TGGCCAGGCT GGTCTCGAAC TCTTGACCTT

FIGURE 3, page 54 of 141

170101 GTGATCCGCC CTCCCAAAGT GCTGGGATTA CAGGTGTGAG GCACCATGCC
170151 TGGCCACAAA ATTTCTTTTC TTTTCTTTTC TTTTTTTTTT TTTTGTCTGT
170201 TGCAAGATTT AATAGAGTGA AATAGAGTGA AAACAGAGCT CCCATACAAA
170251 GGGAGGGGAC CCAAAAATGG TAGCCATTGC TGGCTCCAAT GCCTGGGTTT
170301 ATAACCCAAT CATTGTCCCT CCCACTGTGT TCTCAGGCGA TAGATGATTG
170351 GCTATTTCTT TACCTCCTGT TTTAGCCTAG TTACCATTTT AGTGAGCTCT
170401 CTTTCTACC TGATTGGTCA GGTGTGAGCT AAGTTGCAAG CCCC GGTTT
170451 AAAGGTAGAA GCAGTCACCT TCCCAGCTAG GCTTAGGGAT TCTTAGTCAG
170501 CCTAGGAAAT CCAGCTAGTC CTGTCTCTGA GTACCCCTC TCAACAGGAA
170551 AACCCAAGTG CTGTTGGGGA GGATGGCCGA TGA CTGCT AACTGCTTCC
170601 TGCTGAATTG GGGCGTAGTG GGGGTTATGC AGTTGAGATT TCCTCTGGAG
170651 GGGTGCCTTC GATGTCATTA ACATCGGAGC ATGGGCTAGC AGGCCGGTCC
170701 AGGGGTCTGC GGTAGATCTT AGTCATGGAC TGCGTCTGGG GCTCCATTG
170751 AAGAACAATT TGTAAGTTTA GAGCTTCAAT TTTGGAAGAG ACAA ACTTAA
170801 CAAGGAGGTT AAAGATACAG GGATTGAAAT GTATGGCTG AAGTGCAGGG
170851 GATTATTTCT TTGGGACACT TCACAGGCC TGACTATCTG CTTGATAGTT
170901 TTGAAAAGGC CTGGCCAGT AAATAATAAT TTGGCCATCT GATGGGTACT
170951 ATCAATGCCT AAGTGAAGG TTAGTGGAAG GGTTTTAAAGT AATTTCTATT
171001 GGTTAGCTGC AGGCAAAATA TTTTCTTTC TCTGGTGGCT AGCCATCTGG
171051 AGGGGAGGGA AGTATGTCCT CGTGAGGTTT CCTATTCTAT TTTTCTGCT
171101 GAGTACTGGG ACTTGGTTTC CCGGAGTGGA TTACCCATA CTAGGGGTCC
171151 TTCTATAAGC ATTTCTAATG GAGGGTCTTG CCTTGCAGCT CTTTGTACTT
171201 CAATATCTGC TTGGCGGTTT CCTTCTATTT CCCTTCTCTT TCCTTTCTGA
171251 TGATATGGC AGTGAAGAC TGCCACCTCT TCAGGTTTCT GTACAGCCAA
171301 TAATAATCTC CTAATGGCTT CCTGATGTTT GATAGGTGTT CCCTCGAAAT
171351 TAGGAATTCC CTTTCTCTCC ATATTGCTGC ATGGGCATGG AGGACTAGGT
171401 AAGCATACTT AGAGTCTGTA TATATATTTA CCCTTTTCTT CTTCTCTTAA
171451 TTCTAGTGCC CGAGTGAGGG CTGTTAGTTT TGCCAGCTGA GCACTAGTTC
171501 CTGGAGTGAG GGGTTTACTT TCAAGTATTC CATTATCACT GACCACTGCA
171551 TACCCTGCTT TTCAAAGTCC TTTTCTTACA AAGGAACTTC CATCAGTATA
171601 CAAGCTGAGG TCGGGATCAG TCAAGGGACC CTCTAAAAGG TCCCTTCAAG
171651 TGGCATAGGT TTGAGCAATT ACTTGTTGAC AGTTACATTC TATCTTTTCT
171701 TCATTGTCTG GAAGAAATGT GGCTGGGTTA AGAGTTGCAC AAGTGCGCAG
171751 TCACAGCACT GGACCTTCAA GTAATAGAGC CTGATATTTA AGTAAACAGT
171801 TGTCTGACAG CCACAAGTCT CCTTTAGCAG TGAGTATGCC ATTCACATCA
171851 TGAGATGTCC ACACAGTAAG ATCTCTTCCC TGTATCATTT TAAC TTTTTC
171901 AGATACTAAG ACTGCTACTG TCGCCAATAC CCGTAAACAA TGTGGCCAAC
171951 TCTTTGCCAC TACATCAGTT TCCTTACTCA GGTATGCCAT GGGTTGCAAG
172001 CTCATCCCTC GGACCTGTGT AAGGACTCCT AGAGCTATTC CTGTTT TTTT
172051 TGTGACTTAT AAAGAAAAGT CTTGTCCCGT TGGCAAGCTT AACGCTGGGG
172101 CTTGGGTTAG GGCCTTCTTT AGAGCCTGGA AAGCTGCTTC TGCCTCAGGT
172151 GTCCATCTTA CTAAATGGGT ATTGGCTTTC TGAGTTTCTT TAATTATATA
172201 ATGTTCTGGC TATTTGCGCG TACCTGGGAA TCCATATTCC GCAGAAACCT
172251 GTTATGCCAA GAGGCCCTTT TAGTTGCTTT AGGGTTTGG GATGAGGACA
172301 AGCCAGTATA GGCTGGATAC GTTCTCTACT GAGTGCCTG GTGCCTTTGG
172351 ATAATTTTGC CCCTACGTAT TTAACCTGCT ATGAGCAGAG CTGAGCCTTT
172401 GGT TGGGAAA CCTTGTAGCC ACAGGTAACG AGGAAATTTA GCCTTGCCGC
172451 AAAATTTCTA TATAGCAAAA GACATAATAA AGATAAAAGA CAAATGAGAA
172501 ATAACAAATT AAGAAAACAT TTGCAATTCT TACAATATAT ACAGGTATATA
172551 ATGTATAAAA TATATGTTCT ACCTACCCCT TTAAATTAGG AAAAAAAGAA
172601 AACCCAACAG AAAAATGAGC AGAGGAAATT ACCAATTTCA TGAAGAATCT
172651 CACAAAAGGC TAATAAAAGG TGATTCAACC TTATTTAAATA AATAAAAAATA
172701 AAATAATAAT ATATCACAGT TTTGTAAAAC TGGAAAGATT TACAAGACAG
172751 AATATACAAT GTTAACAAAA GTGTGGGGGA AAACAGGACT TTTATACATT
172801 GTTGGTAAAA TGCATAATAG TTTTGAAGAA ATATTTTACA ACTTTT TTA
172851 AAATTACAT TTTTATTCAA CAGTTTTTTA AAAAAATATCA TATGTAAAGA
172901 ACTCTCTGGG TGTTGAGAAT ACAATGCTTT TTTT TTTTAA GTCCCTAACCT
172951 TCTTGGAAATA TAACATTCTG GAGGAGAAGT TAGAAAATGA ACAAAAAACT
173001 ACAAATAGAA GTAAAATATA ATATCTTATA AAACACAGTG GCATTCTACT
173051 TCTGATAATG TAGGCTGGGT AATGCCAGCA AGATTTCAGT AGATTAGACT
173101 AGACTAGTTT TCATAAAGCT TATATACCAC TAAAGCAGAA ATTAATGAAC
173151 TGAAAGAAAG GTGAGAATAC ATTAGAATAC TGAGAGTAAA AACAGGGAAT
173201 TACAGAAGAA AGGGCAAAAG ACCGGGGAAA CACAGTGAGA TCTAATATCA

FIGURE 3, page 55 of 141

173251	CTTAAGTCAA	GTCTCAGAGA	GAAACAGTAT	TTGAGGAAAT	AACAGGGGAA
173301	AATTTTCCAG	AATTGATGGA	TATCATTCAA	TAGATTCAAG	AGACTGAAGA
173351	ATACCGAGTA	ACAAAATACA	GAAATCTATA	GCTTGATATA	TCATATTAAG
173401	ACTTCAGACA	ACCAAAGATG	TAGAGATTCT	TGAAAGAATC	CAGAGAAAAA
173451	CCAATAAATT	ACTTTCAAAC	AAGTGACAA	GAACTAATT	GCTAATCTAA
173501	ATAGCAATAA	AGAAACGCAT	AAGTAATTGA	CATCTTCTGT	GCTACTGAAAG
173551	AAAGTAACTT	CCAACCTGTA	ATTATAGAG	TAAATCAAGG	TAATGAAAAT
173601	TAAAGTCCAC	ACTGAGATAC	CACTACGTAC	CACTCAGGAC	AAAAATGTAA
173651	AAGTTTGATA	ATACCAAGTG	TTGTTAAGGA	TGTGGAACATA	CAAAGACAAA
173701	TTATGCTTCC	ATTACTGGTG	GGAGTATAAA	TTGATGCCTC	TTCTTTGGAA
173751	AATAGCTTCT	GGCATCTTCT	AATAAAGATG	CATACCCTAT	GACTCAATAA
173801	TTTTACTCCT	GGGTGTATTC	CTTAGAAACA	TGTATGCTTA	TGTGTGAAAC
173851	CAGCCCAACA	GTCCTATAGA	CAATTGTTTT	GGGATAAACA	TAGAAATTGA
173901	CCCTCTGCT	CTTAAAGCTT	GAACTTGTC	TTGTTTTTAT	CTGAGTTTCT
173951	TTCTCAGGAA	AGGACTATCA	GGCCTCTCAA	AAAAGTATCA	AAGAACCAAA
174001	ACTCACCGAA	TGCCTCAAGC	CCCCCTGTAG	TTCTTGCTTT	CTTACACATT
174051	GTTACATTTT	TTCCCTGCTA	TATAACCTCT	AGAGTTAGTG	AGCCAGGGAG
174101	ATGGAATTGA	GGCTGAGCTC	CCATCTTTTT	GGCTGCAGCA	CCCGATTAAA
174151	GCCTTCTTCC	TTGGTGTACT	CATTGTCTCA	GTGATTGGCT	TTCTGTGCTG
174201	CGAGCAGCAG	GACCTAGACC	GAACCCCTGG	TGTTTCGGTA	ACATGTGCAC
174251	CAGGAGACAT	ATACAAGAA	GCAGTAATAG	CCTCTAGAAA	CAATGAAATG
174301	CCTATTAATA	GCATAACAA	TAAATTATAG	CATATTCTAT	CAATGGGATG
174351	CTCTATAGCA	ATAAAAGTAA	ATGACCTCA	GCTCTCTGTA	CAACATAGTA
174401	TAAATCTTGT	AGACATGATA	TAACATAAAG	AAGCAAGATA	TGAAAGATTG
174451	CCTAAGATAT	AATTTCTTTT	ACATAACCAT	TAAACCAGAT	AAGCCAGAGT
174501	ATATCATTTA	GGAATTATAT	ATATAACTAT	ATATATATAT	ACTTTCATAT
174551	ATATATATAT	ATGAAACTAT	AAAGAAAAGC	AAGGACGTGC	TTACCATAAA
174601	AGTTAAAATA	TTGGTTATTT	CTAGAGTGAA	AGCAGGCTTT	ACAAATAGGA
174651	AGGGATGTGG	AATATCGGAA	TGTGCGTGAT	GCAATTTGGG	CACTGGTTAA
174701	TTTTAAGTTT	CTCGACCTAT	ATAGTAGTTT	TGCAAGTATT	TGCTTTATAT
174751	TTATTATATT	GCACTTCTTT	GGTATTGTTT	GGAGGTATAT	ATTTTAGTAG
174801	AAACAAAGGA	AATGAGAGAG	CAAACCTCTG	ACATATCTAG	GGGAAATGTT
174851	CTCTCTGACA	GAAATGTGCC	TCTCCTTTTA	CCCAGCATTT	TCTGTAGTA
174901	TTTTATCATC	CAGAAATACC	TCTACAAAT	TTGCAAAGTT	ATGTGTTTAC
174951	CACAACATTG	AAGTGTGTAA	GTAATTTTAG	GTTGAGAGTT	TATCATGAGT
175001	GGAGATTTTT	CTCTGAGCAA	ATGCTAAACA	GCAGGTTGTA	GGAATGTCCC
175051	TCCAGTCATT	TTTTTTTCT	TTCTGGCAGG	CATCCTGTAT	AACTACTCCA
175101	GACCAATTTA	ATGTTAATTT	CTCATGAAAT	CCTACAGCAC	ATGAGAAATG
175151	TAAATTGACA	TTTTTATTTT	ATTTTATTTT	ATTTTGAGAC	AGAGTCTCGT
175201	TCTGTGCCCC	AGGCTGGAGC	GCAGTGGCAC	AATCTCTGCT	CGCTGCAATC
175251	TCTGCCTCAC	CGGATTCAAG	CGATTCTCTG	CCTCAGCCTC	CTGAATAGCT
175301	GGGATTGTAG	GTGTGCACAA	CCACACCTGG	CTAATTTTTG	TATTTTTAGT
175351	AGAGACGGGG	TTTCACCATG	TTAGCCAGGA	TGGTCTCGAT	CTCCTGACCT
175401	CATGATCCAC	CCACCTTGGA	CTCCCCAAGT	GCTGGGATTA	GTGTGAGCCA
175451	AGGGTCCATT	CCAAGAGGGC	GGAATGAGAA	CAGCTCTGGT	TTGAGGCTCC
175501	CAGCATGATC	AACGCAAGAG	ACAGGTGATT	TCTGCATTTT	CAACTGAGAT
175551	GCCTGGTTCA	TCTCATTTGG	ACGGGCTGGA	CAGTGGGTGC	AGCCCACGGA
175601	AGGCAAGCTG	AAGCAGGGCA	GGGCATCACC	ACACCTGGGA	AGTGCATGGG
175651	GTCAGAGGAT	TTCCCTTTCT	TAGCCAAGGG	AAGCCCTGAC	AGACTGTACT
175701	GGGAAAAATC	GGACACTGCC	ACCTAAACAG	TGCATTTTTA	CAATGGTCTT
175751	AGCAAAACGC	ACACCAAGAG	ATTATATCCA	GCACCTGGCT	CAGAGGTTCC
175801	CACGCCCATG	GAGCCTTCCT	CACGTCTAGT	CCAAGATCAA	ACTGCGAGGT
175851	GGCAAGCCTG	GCATCTAAGA	CACCAAAAGC	AATAGCAACA	AAAGCCAAAA
175901	TAGACAAATG	GGATCTAATT	AAACTAAAGA	GCTTCTGCAC	AGCAAAAGAA
175951	AACTACATCA	GAGTGAACAG	GCAACCTACA	GAATTGGGAG	AAATTTTGTG
176001	AATCTACCCA	TCTGACAAAG	GGCTAATATC	CAGAACTCTAC	AAAGAACTTA
176051	AACAAATTTA	CGAGAAAAAA	ATCAAAACAG	CCCCCTAAAA	AGTGAGCAAA
176101	GGATATGAAC	AGACACTTCT	CAAACGAAGA	CATTTGCGCA	GCCAACAGAC
176151	ACATGAAAAA	ATGTTTCATCA	TCACTGGCCA	TCAGAGAAAT	GCAAAATCAA
176201	ACCACAATGA	GATACTATTT	CACACCAAGT	AGAATGGCAA	TCATTAATAA
176251	GTCAGGAAAC	AACAGGTGCT	GGAGAGGATG	TGGAGAAATA	GGAATACTTT
176301	GATACGTGTT	GTGGGAGTGT	AAAGTAGTTT	AACCATTTGT	GAAGGCACTT
176351	TGGCGATTCT	TCAGGGATCT	AGAAGTAGAA	ATACCAATTT	ACCCGCTGAT

FIGURE 3, page 56 of 141

176401 CCCATTATTG GGTATATACC CAAAGGATTA TACATCATGC TACTATAAAG
176451 ACGCATGCAC TTGTATGTTT ATTGTGGCAC TATTACAAT AGCAAACACT
176501 TGGAAATCAAC CCAATGTCC ATCAATGATA GACTGGATTA AGAAAATGTG
176551 GCACATATAC ACCATGGAAT ACTATGCAGC CATAAAAAAT GATGAGTTCA
176601 TGTCTTTTGT AGGGACATGG ATGAAGCTGG AAACCATCAT TCTCAGCAAA
176651 CTATCGCAAG GACAAAAAAC CAAACACCGC ATGTTCTCAC TCATAGATGG
176701 GAATTGAACA ATGAGAACAC ATGGACACAG GAAGGGGAAC ATCACACACT
176751 GGGGCCTGTT GTGGGGTGAG GGGAGGGGGG AGGGATAGCA TTAGGAGATA
176801 TACCTAATGT TAAATGACAA GTTAATGGGT GCAGCACACC AACATGGCAT
176851 ATGTATACAT ATGTAACAAA CCTGCACTTT GTGCACATGT ACCCTAAAC
176901 GTAAACAGAA ATCTCTTCT CTGACCTTCC CTGCCCCC TTTCTCTCAC
176951 CAAAAATTTT CAAAACGGTG ATATTGTGAT ACACACACAC ACACACATAT
177001 ATAAAGTACA CATAAGTTC ATATATATAT GTATATATGT ATATATGTAT
177051 ATTTGTATAT TATATATGTG TATATATATA TGTGTGTGTG TGTGTGTGTG
177101 TGTATATATA TATATATATA TATATATATA TATATATATA TATATATATA
177151 AAGTTTTTCT CCATGGTTCC TAGCTCATAA CTTCCATAGC CCTTGTTC
177201 GTAAACAGAA ATCTCTTCT CTGACCTTCC CTGCCCCC TTTCTCTCAC
177251 CTACAATAGA ACTCTAATCT GATTGTGAGT CATAAGACCT TCATTCTAGA
177301 GAGGGTCTCT TTTTCTTCCC TGGAGAAAGA GATGCTGCAT AGAGAGGCCA
177351 AATGGAATCT GAACAAAGAG GCTTTGCTAG GTTTAGATCT TACTCTTTT
177401 GTCCAATCAC ATTTTGCAC AGTTATCCAT GCTTTGACCA TGCCTATGCA
177451 ATGAAGTCTC CAAAAACCC AAAAGGATGG AGTTTGCCCA GATTCTGGAT
177501 GGCTGAACAC ATGGAGGGT CTAGAGGGTG GCACACCCAG GAAGGGCATG
177551 GATGCTCCAT GCCACTTCTT CCATGCCTTA CCCTATGCAT TTCTTTATCT
177601 GTATCCTATG TCATATCCTG TATAATAAAC CAGTAAACAT CAGTGTTTCC
177651 CTGAGTTCTG TGAGTCACCC TAGCAAATTA ATCAAACCCA AGGAGGGGGC
177701 TGTGAGAGC TGATTATAG CCAGTTGATC AGAAGGCCTG GATTGTGAC
177751 TGGTGTTTGA AGTGGGGCAG TCTTGGGGAC TGAGCTCTCA ACCTGTGAGA
177801 TCTGACACCA TCTCCAGTGT CATAGATAGA TATTGTAGAT AGTCAGAATT
177851 GAATTAGGGA AACCACAGT GGTGTCCATT GCAGTAGTAA TTGCTTGT
177901 GTTTGTGGGA AAAACACCCA CACATTTGGT CACAGGTGTC TTCTGTATTG
177951 ATTGTTTTCT TGGTGGGACA GCAGAGGAAA AATGGTTTGA GGTTTTTTTT
178001 TTTAAATAAA TAGTACTACA ATGCAAATGT ACAACACATC TATTTCTCCC
178051 TACTCATTAA ATAGGCCAAA ATTAATTTTC TAGTGAAGG ACTTAGCAT
178101 GCTGTTTATG AAAATAATTT GATGCAAATC AGTAGGCATG CCTTGGGCTT
178151 TTTTATTGTT TGCAGCATGA GGACCGTCAA AGTGCTCTGA GAGAATCAGA
178201 AGCAGAATAT TGATGGGGAG AGGGCATTGA ACCTTGTGAC TTCAAGATTT
178251 TCTCCATTGA GGGTGCTAAT TTTTTGGGAA AGTGATCAGC TAAACATGAG
178301 TTATAGTTCA ATAGACACCA TGGCTGAGCA ATTTAAGATG ATATATAAAA
178351 GGCCAGTCC AGATCAGGAG GCCAAGTGA CTGGCGATAG GGATGAAGGT
178401 AAGACTCACC ATCCTTAGGA AACTAACCTC TGTATGGCAA GATGCTGGAG
178451 CTGGTGGGCT TGGTGCAAA GTGAACATA GATTCATTG GTTTTGAAT
178501 TTGGGTTTGG TAAAGCAAA ATCACAAATG GATAGGGCTA GATCAAATTG
178551 AAATTTAAAT GGTAAATAAG AAATGAAAGT GTTGGTCCAA AGTGTTGACA
178601 GCCAACAAAG GTTGAATGC ACTTTTGAAT CCAGAACAGG TAACCACCTT
178651 GGCTTTTCAAT ACTCATTCTC AGTGGAGGCA TGTAGCAGGA GGGTGTCTGA
178701 TTAGAGGAAC CACAAACAGG TAGAGCTGGA GAAAGCAGAA TAGGAATCAA
178751 GTGTAGGAA AAAAGGCTCC AGTATAGCAG TTGCTATCAG GTTGTTCATA
178801 CCTGTTTTGA TCCCTTTACC ATTTCTTGT GCTTTGTGTC CCAGCTGTGT
178851 CTCTTTTTGT GGGGGCTACT CTCAAGCTGC CAGAGCTCCG TCTGTCTATA
178901 CTCAGACAGC CAGAAGGGCC TGGGAATATA TACCTCTCTC CCACACCCCC
178951 AGCCCTCAAG AGGCAGACTT TTCAAAATGA CTAATGTATG GAAGAGCATA
179001 AACACTCCAG TACCTCCCTG TTAATTGTCT CTAGAGCTCT GGGGGATTAA
179051 GCCAAAGTTA GGCCTTGTGG ACCTCTACTT GATACGCTT TCTGTATAAA
179101 TAACTTTTTAC AAAAATTCTC ATCTCAAGAG TCTTTTTCTG GGAATTCTAG
179151 CCTAAGACAC CTAGCTTTTC AAAAATTGG AAGTAATTCC TAGCTGTTTT
179201 ATGAGATCTG GGGGAGTTTT CTTATCAGTT TTTCTGAAT TAGGCTTTAA
179251 ACATTTTTTTA AAGAATATTG ATGATTTTAT TGATGTGTTG TCTGTCTCAC
179301 AGGATAACCA TGAATCACT GCGTATAAGT AAGGAAAATG ATTTTAATGA
179351 ATCTCTGAGC CCCTTAGTGC TGACACTTTC TCTATGGTTA CAGTATAACA
179401 CAGAGCACCC ACATTCACCA AAAGAAGCCT TGTACAGGCA CCACACCGTA
179451 ACGTGACCTG GTTACCTGGT TCTGTCCATG GTGGGCATCA GTGTCTTCAC
179501 CCAAATAGTC AGGCTCTCCA GATAGGTTTG AAAACTTCAG ACAAAGTGAA

FIGURE 3, page 57 of 141

179551 GATGACAATG ATTTTCTGAG AATGACTGAG GAGAACTCTA CCAGAAAATT
179601 GTAGACAGTT TACCATGAAT ACTTAGAGAT AAAGAGCTTT TCCAGATAGG
179651 CTGTAAGATA TAGTAGTTGC AAGTTTCTAT TTGTTAAGAA ACTGTTTTTA
179701 TTTTAAACT TAACAAAGGT TTAATAGCTT TAACATTTAA AAAATTTATG
179751 CACAAATACC TTGGTCCTAA GCCAAATATT AACAGTCAC AGAGCAAAAA
179801 GTAAACACG TAATAAAAT ATTAGAATCG TTAGAGTTCA CTCTTAATTT
179851 TTAAATTC AATTAATGA ATACAATAAC ACATTTATCT ATCACACAAG
179901 CAAAAATTAA AGTAAGAAAC AATAAAATA TGCATCACTA GAGGGCTAAC
179951 ATTACAGGTA CTGCATCATT CCCTTAACAT GCATTGTTTT ATTTATTTAT
180001 TTTTTTATTA TACTTTAAGT TCTAGGGTAC ATGTGCACAA CGTGCAGGTT
180051 TGTTACATAT GTATACATGT GCCATGTTGG TGTGCTGCAC CCATTAAGCT
180101 GCACCCATTA AGTCATCATT TATATTAGGT ATTTCTCCTA ATGCTATTCC
180151 CTCCCCATC CCCTCACCCC ACGACAGGCC CCACCCTGTG TCTAAGTGTT
180201 CTCATTGTTT AATTCACC TATGAGTGAG AACATGTGGT GGTGTTGTTT
180251 CTGTCCCTGT GATAGTTTGC TGGGAATGAT GGTTCACAGC TTCATCCATG
180301 TCCCTACAAA GGACATGAAC TCATCATTTT TTATGGCTGC ATAGTATTCC
180351 ATGGTGTATA TGTGCCACAT TTTCTTAATC CAGTCTATCA TTGATGGACA
180401 TTTGGGTTGG TTCCAAGTCT TTGCTATTGT GAATAGTGCC ACAATAAACA
180451 TATGCGCACA TGTGTCTTAA TAGTAGCACG ATTTATAATC CTTTGAGTAT
180501 ATACCCAGTA ATGGGATGGC TGGGTCAAAT GGTATTTCTA GTTCTAGATC
180551 CTTGAGGAAT CGCCACACTG TCTTCCACAA TGGTTGAACT AGTTTACAGT
180601 CCCACCAACA GTGTAAAAGT GTTCCTGGCT GGGCACGGTG GCCCATGTCT
180651 GTAATCCCAG CACTTTGGGA GGCTGAGGCG GGTGGATCAC GAGGTCAGGA
180701 GATCGAGACC ATCCTGGCTA ACACGGTGAA ACGCTATCTC TACTAAAAAT
180751 ACAAAAAATT AGCTGGGCGC GGTGGCAGGC ACCTGTAGTC CCAGCTACTC
180801 AGGAGGCTGA GGCAGGAGAA TAGCATGAAC CCAGGAGGCT GAGCTTGCAG
180851 TGAGCCGAGC CTGGGTGCAC TCCAGCCTGG GTGAAAGAGT GAGACTCTAT
180901 CTCAAGAAAA AAAAAAAGTG TTCCTATTTT TCCACATCCT CTCCAGTACC
180951 TGTTGTTTCC TGACTTTTTA ATGATCAACA TTCTAACTGG TGTGAGATGG
181001 TATTTTCATT TGGTTTGGAT TTGCATTTCT CTGATGGCCA GTGATGATGA
181051 GCATTTTTTTC ATGTGACTGT TGGCTGCATA AATGCTCTCT TTTGAGAAGT
181101 GTCTGTTTCAT ATCCTTTGCC CACATTTGAT GGGGTTGTTT GATTTTTTCT
181151 TGTAAATTTG TTTAAGTTCT TTGTAGATTC TGTATATTAG CCCTTTGTCA
181201 GATGGGTAGA TTGCAAAAAT TTTCTCCCAT TCTGTAGGTT GCCTGTTTCA
181251 TCTGATCGTG GTTTCTTTTG CTGTGCAGAA GCTCTTTAGT TTAATTCGAT
181301 CCCATTGTGC TATTTTGGCT TTTATTGCCA TTGCTTTTGG TGTTTTAGTT
181351 ATGAAGTCCT TGCCCATGCC TATGTCCTGA ATGGTAATGC CTAGGTTTTC
181401 TTCTAGGGTT TTTATGGTTT TAGGTCTAAC ATTTAGGTCT TTAATCCATC
181451 TTGCATTAAT TTTTGTACAA GGTGTAAGGA AGGGATCCAG TTTCAGCTTT
181501 CTACATATGG CTAGCCAGTT TTCCACGAC CATTATTTAA ATAGGGAATC
181551 CTTTCCCAT TTCTTGTTTT TGTCAGGTTT GTCAAAGATC AGATGATTGT
181601 AGATGTGTTA TTATTTCTGA GGGCTCTGTT CTGTTCCAAT GATCTATATC
181651 TCTGTTTTTG TGCCAGTACC ATGCTGTTTT GGTACTGTA GCCTTGATTT
181701 ATAGTTTGAA ATCTGGTAGC ATGATGCCTC CAGCTTTGTT CTTTGGCTT
181751 AGGATTGTCT TAGCAATGTG GGCTCTTTT TGGTTCCATA TGAACTTTAA
181801 AATAGTTTTT TCCAATTCTG TGAAGAAAGT CATTGGTAGC TTGATGGGGA
181851 TGGCATTGAA TCTATAAATT ACCTTGGGCA GTATGGACAT TTTCACGATA
181901 TTGATTCCTC CTATCCATGA GCATGGAATG TTCTTCCATT TGTTTGTGTC
181951 CTCTTTTATT TCGTGGAGCA GTGGTTTGTA GTTCTCCATG AAGAGGTCCT
182001 ACACATCCCT TGTAAGTTGG ATTCCTAGGT ATTTTATTCT CTTGAAGCA
182051 ATTGTGAATG GGAGTTCAC CATGATTTGG CTCTCTGTTT GTCTGTTATT
182101 GGTGTATAAG AATGCTTGTG ATTTTTCAC ATTGATTTTC TATCCTGAGA
182151 CTTTGCTGAA GTTGCTTATC AGTTTAAAGG GATTTTGGGC TGAGACGATG
182201 GGGTTTTCTA AGTATACAA CATGTCGTCT GCAACAGGG ACAATTTGAC
182251 TTCTCTTTT CCTAATTGAA TACCCTTTAT TTCTTTCTGT TGCCTGATTG
182301 CCTGGCCAG AACTTCCAAC ACTATGTTGA ATAGGAGTGG TGAGAGAAGG
182351 CATCCCTGTC TTGTGCCAGT TTTCAAAGG AATGCTTTCA GTTTTGGCCC
182401 ATTCAGTATG ATATTGGCTG TGGGTTTGT ATAAATAGCT CTTATTATTT
182451 TGAGCTACGT CCCATCAATA CCTAGCTTAT TGAGAGTTTT TAGCATGAAG
182501 GGCTGTTGAA CTTTCTTGAA GGCTTTTCT GCATCCGTTG ATGCAGAAAA
182551 GAGATAATCA TGTGGTTTTT GTCTTTGGTT CTGTTTATAT GATGGATTAT
182601 GTTTATTGAT TTGCATATGT TGAACAGCC TTGCATCCCA GGGATGAAGC
182651 CAACGTGACC GTGGTGATA AGCTTTTTTG ATGTGCTGCT GGATTTGGTT

FIGURE 3, page 58 of 141

182701 TGCCGGTATT TTATTGAGGA TTTTGTGATT GATGTTTCATC AGGAATATTG
182751 GTCTAAAAATT CTCTTTTTTT GTTGTGTTTC TGCCAGACTT TGGTATCAGG
182801 ATGATGTTGG CCTTGTAATA TGAGTTAGGG AGGATTCCCT CTTTTTCTAT
182851 TGATCTATTG ATTGGAATAG TTTCAGAAGG AATGGTACCA GCTCCGCTTT
182901 GTACCTCTGG TAGAATTTGG CTGTGAATCC ATCTGGTCTT GGACTTTTTT
182951 GGTGGTAGG CTATTAAGTG TTGCCTCAAT TTCAGGGTCT GTTATTGATC
183001 TATTCAGGGA TTCAACTTCT TCCTGGTTTA GTCTGGGAG GGTGTAAATG
183051 TACAGGAATT TATCTATTTC TTTTATATTCTCTAGTTTAT TTGCATAGAG
183101 GTGTTTATAG TATCCTCTGA TGGTAGTTTG TATTTCTGTG GGATTGGTGG
183151 TGATATCCCC TTTATCATTT TTTATTGTGT CTATTTGATT CTTCTCTCTT
183201 TTCTTCTTTG TTAGTCTTGC TAGCATCTAT CTATTTTGTT GATCTCTTCA
183251 AAAAACCAGC TCTTGGATTCTATTACCCA ATTGATTTTT TGAAGGTTT TTTGTGTCTC
183301 TATCTCCTTC AGATCTGCTC TGATCTTAGT TATTTCTTGC CTTCTGCTAG
183351 CTTTGAATG TATTTGCTCT TGTTTCTCTA GTTCTTTTAA TTGTGATGTT
183401 AAGGTGTCAA TTTTAGATCT TTCCTGCTTT CTCCTGTGGG CATTTAGTGC
183451 TTTAAATTTT CCTCTACACA CTGCTTTAAA TGTGTCCCAG AGATTCTGGT
183501 ATGTTGTGTC TTTGTTCTCA TTGGTTTCAA AGAACATCTT TATTTCTGCC
183551 TTCATTTTGT TATTACCCA GGAGCAGGTT GTTCGGTTTC CATGTAGTTG
183601 TGTGGTTTTG AGTGAGTTTC TTAATCCTGA GTTCTAGTTT GATTGCACTG
183651 TGGTCTGAGA GACAGTTTGT TATAATTTCT GTTCTTTTAC GTTTGCTGAG
183701 GAGTGCTTTA CTCCAACCTA TGTGGTCAAT TTTGGAATAA GTGCAACGTG
183751 GTGCTGAGAA GAATGTATAT TCTGTTGATT TGGGGTGGAG AGTTCTGTAG
183801 ATGCTATTA GGTCTGCTTG GTGCAGAGCT GAGTTCAATT CCTGGATATC
183851 CTGTGTAAC TCTGTCTCA TTGTTCTGCC TAATGTTGAC AGTGGGGTGT
183901 TAAAGTCTCC CATTATTATT GTGTGGGAGT CTAAGTCTCT TTGTAGGTCT
183951 CTAAGGACTT GCTTTATTAA TCTGGGTTCT CCTGTATTGG GTGTATATAT
184001 ATTTAGGATA GTTAGCTCTT CTTATTGAAT TGATCCATTT ACCATTATGT
184051 AATGGCCTTC TTTGTCTCTT TTGATCTTTG TTGGTTTAAA GTCTGTTTTA
184101 TCAGAACTA AGATTGCAAT CGCTGCTTTT TTTTGTTTTC CATTTGCTTA
184151 GTAGATCTTC CTCCATCCCT TTATTTTGAG CCTATGTGTG TCTCTGAATG
184201 TGAAATGGGT CCCCTGAATA CAGCACACTG ATGGGTCTTG ACTCTTTATC
184251 CAATTTGCCA GTCTGTGTCT TTTAATTGGG GCATTTAGCC CATTTACATT
184301 TAAGATTAAT ATTGTTATGT GTGAATTTGA TCCTGTCATT ATGATGTTAG
184351 CTGGTTATTT TGCCCACTAG TTGATGCAGT TTCTCCTAG CATTGATGGT
184401 CTTTACAATT TGGCATGTTT TTGCAGTGGG TGGTACCAGT TTTCTTTTCC
184451 ATGTTTAGTG CTTCCTTCAG GAGCTCTTGT AAGGCAGGCC TGGTAGTGAC
184501 AAAATCTCTC AGCATTGCTT TGCTGTGAAA GTATTTTATT TCTCCTTCAT
184551 TAGTGAAGCT TAGTTTGGCT GGATATGAAA TTCTAGGTTG AACATTCTTT
184601 AAGAATGTTG AATATTGACC CCCACTCTCT TCTGGCTTGT AGAGTTTCTG
184651 CTGAGAGATC TGCTGTTAGT CTGATGGGCT TCCCTTTGTG GGTAACCCAA
184701 CCTTTCTCTC TGGCTGCCCT TAACATTTT TCCTTCATTT CAACCTTGGT
184751 GAATCTGACA ATTATGTGTC TTGGGGTTGC TCTTCTTGAG GAGTATCTTT
184801 GTGGTGTTCT CTGTATTCT TTAATTGAA TGTGGCCTG CCTTGCTAGG
184851 TTGGGGAAGT TCTTCTGGAT AATATCCTGC AGAGTGTTTT CCAACTTGGT
184901 TCCATTCCTC CCGTCACTTT CAGTTACACC AATCAAACAT AGATTGGTCT
184951 TTTTCACATA GTCCCATGTT TCTTGGAGGC TTTGTTTATT TCTTTTACT
185001 CTTTTTTCTC TAAACTTCTC TTCTTGCTTC ATTTCACTCA TTTAATCTTC
185051 AACCCTGAT ACCCTCTCTT CCACCTGATG GAATCGGCTA CTGAAGCTTG
185101 TGCATGCGTC ACGTAGTTCT TGTGCCATGG TTTTCATCTC CCTCAGGCCG
185151 TTTAATGTCT TCTCTACACT GTTTATTCTA GTTATCCATT CTTCTAATCT
185201 TTTTTCAAGG CTTTTAGCTT CCTGGGTTCT AACATCCTCC TTTAGCTTGG
185251 AGAAGTTTCT TATTACCGAT CTTCTGAAGC CTACTTCTGT CAATTCGTCA
185301 AAGTCATTCT CTTCCAGCT TTGTTGAGT GCTGGCGAGG AGATGCGATC
185351 CTTTGGAGGA GAAGAGCGC TCTGGTTTTT AGAATTATCA GACTTTCTTC
185401 TCTCGTTTCT CCCCATCTTT GTGGTTTTAT CTACCTTTGA TCTTTGATGA
185451 TGGTGACCTA CAGATGCGT TTTGGTGTGC ATGTCCTTTT TGTGATGTT
185501 GATGCTATTT CTTTCTGTTT GTTAGTTTTT CTTCTAACA CCAGGACCTT
185551 CAGCTGCAGG TCTGTTGGAG TTTGCTGGAG GTCCACTCCA GACCCTGTTT
185601 CCCTGGGTAT CACCAGCGGA GGCTGCAGAA CAGCAAATAT TGCAGAACAG
185651 CAAATATTGC TGCCTGATCC TTCTCTGGA AGCTTCGTCT CAGAGGGGCA
185701 CCCGGCTGTA TGACGTGTCA GTCGGCCCTT GCTGGGATGT GTCTCCAGT
185751 TAGGCTGCTC GGGGTCAGG GACCCACTTG AGGAGGCAGT CTGTCCATTC
185801 TCAGATCTCA AACCTCCGTG TTGGAGAACC ACTGCTGTCT TCAAAGCTCA

FIGURE 3, page 59 of 141

185851	GTGGAAATG	CAGAATCACC	CATCTTCTGC	ATCACTCGCG	CTGGGAGCTG
185901	TAGACTGGAA	CTGTTTCTAT	TAGGCCATCT	TTGTTAAGAA	ACTGTTAATT
185951	ACCCTTGCCA	AAAAGTCAAC	ATCTAAATGT	CAAGATGTTT	CTTAGTACTA
186001	GAAGAGGCCT	GGAATTCTAC	TGTTAGGGAC	TTTTGCAGCC	TGCATGGAAG
186051	ATCTGAGTTC	TGTTTGGCAA	CTTTATTCTC	TGTCAGATTT	CAAGTTGCAA
186101	ATAATGTTCT	CTGTGTAGATC	CTGTGATAGT	TAATTTATATA	TGCTATTTTG
186151	GCTAGGCCAT	GGTAGTTTGG	TCCATCACCA	GTCTAGATGT	TGCTGTGAAG
186201	GTGTTTTTAA	GATGCAATTA	ATATTTTTAT	ATCAGTAGAC	TTTGAGTAAA
186251	GCAGATTACT	CTTGATAATG	TCATAATGTG	AGTGGGCCCT	ATCCAATCAG
186301	TTGAAAGCTT	TAAGAGAAGA	AGACTGATCT	TCCCCAAAGA	AGAAGGAATT
186351	CTGTCTCCAG	GCTTCTTTTG	GACTTAAGGT	TGCAACATTA	ACTCTTTTTC
186401	GAGTGTCCAG	CCTGTGTGCC	TACCCCTCATG	GCCTACCTTG	CAGATTTTGG
186451	ACTTGCCAGC	CCCCATAATT	GCATGAATGT	GAACCAACTC	CTTAAACCCC
186501	CCATGCCACC	CATCTCCACA	CACACACACA	CACACACACA	CATCCCATCT
186551	TGCTGTGTTA	AGTTTGCCCT	TTCACATTGG	TGAGCCGAGA	ATGCTTTTAG
186601	GCCAGCAAGC	ATGTTTCTAG	AGTTTCTCTG	CTGCCCTCCAG	ATGGCCGGTT
186651	AACAGAAGGG	TGCTGCCAAT	GGGAGACAAA	TGTTTTCCAG	GAGACCAGAG
186701	GTGGAAAAGA	GAAATTATGA	TGTTAGGATT	TTATTGAAGA	GAAACTCTCA
186751	TTTGGCTTAC	AAGGTGTTCT	GTCTGCCAGC	AATTATACAA	GTTGCTAAGT
186801	GCATTCCAAT	GTACATGACA	GAAACTTTGT	TAATGAGAAA	ATACAACGAG
186851	AAAAAAGTAA	AAGAGAGGAG	GGAGAGGCCG	CCTATGGTAG	TAATTTAAAT
186901	CCTTCAAGCT	TGGTGGTCTT	AGTTTGAATC	TTACTTTTTG	GCAAAATATT
186951	GGTGGCCAGG	AACAGAAATC	AGTGGTCTAT	TCTTTTACTA	CTCTAAGTGT
187001	GGTTTGTGGA	CTAGCAGCAT	CTCCATCACC	TCGAAGCATG	TCAGAAATGC
187051	AGAATCTCAG	GCCCTACTCC	AGTCCTGCCA	ATCTGAACCC	AGAGTTCATC
187101	AAGTTCCTCA	GATGATTCAT	GTGCACACTG	GTTGTAATGC	AGTACATGTT
187151	TTTGTCCCCC	CAGATTTCAT	ATATTGAAAC	CCTAATCCCC	AGTGGGATGA
187201	TATTTCTGAA	TGAGGCCTTT	AGGAGTGTAT	TTGGTCATGA	GGGTAGAGCT
187251	CACAGATGGG	GATTAGTTCC	GTTGTAAGTA	GAGACATGAG	AAAGTCTGGC
187301	TCCTGTCTCT	ATGTTTCCAT	GCTCCTCCAC	CATATGAGGA	TACAAGAAGA
187351	GGACAGCAGT	CTGCAAATCA	GGAAGGGAGC	CTTCAACCAG	AACTGAATC
187401	TGCCAGCACC	TTGACCTTAG	ACTTCCCAGC	CTTCAAAACT	GTGAGAAATA
187451	AAATTTCTGT	GTTTAAAGCA	CCTAGTCTAT	AGTATTCTGT	TACAGAAGCC
187501	CAAACTAACT	AAGATATTGG	TCTAGTTTAT	TACTCCTTGT	CGTAAATTTC
187551	TAAGTCTTAA	TGCAGAAAAG	TAACCTGAAA	TCATTTCAGT	CAGGCTCTGG
187601	TTTTAAGGTT	GGTGAGTTAT	CACCATCCCA	TTCTACACGT	AAGACACCTA
187651	AGGCTTGCGA	GCTTAAACCA	GTTGCCATAA	GTCATAGAAC	GAGTTGTCTT
187701	CTGCCCTCAA	ACACAGCACA	TCCCACATAG	TACCAAATTT	TTCAGAGTCT
187751	CTGTGAAGTC	TTTTCTACAT	TCTCCTTGAC	AGAATGAATT	TCCTGGCCTG
187801	AATTCATTTT	TCTGAATTTG	GGGGAGAAAA	GACAATGTAT	ACCTTGTCTAT
187851	TTTCGCTTTT	ACTCTCTAAA	GCAGGAAAGA	AAAGTTTCAG	GGAAACATTA
187901	CAGTTTTTCT	TGAGGGAAAA	TCATCTTGAC	ATATAGGATA	AAAGTGCAGA
187951	CTCTAGAGCT	TGAGGGAGAC	CTATTTCCAA	AAGGATCATG	GAGCTTATTT
188001	CTGTCACGTG	AATGTGCGTG	CATGTGTGTG	TGTGTGTGTG	TGTGTGTGTG
188051	TAGCAGGGAG	TGGAGAGCTT	TTAGTACACT	CAGTCAAAAT	TAGAGATGTC
188101	ACTTAGAGAG	GCATCTACAG	CAGAACCTGC	TGTCTATATAT	ATAAAAAACA
188151	GTACTGTACT	GTACTTAATT	TAGCCCTCCA	GAAAGGGTCA	TGAATATGCA
188201	TTTTGTCTAA	GAAAATTATT	TCTTTTCACA	ACCTCATGTG	TGATGCTGTA
188251	GGCTAAGCTA	ATCAATGTAG	TTAAATTTAG	CCCTGGTTTT	GAAAGTTTGT
188301	TTTAGAAAAG	GTCACGGTAG	TAACCTTATA	GTTTATTGTG	TGAGGAAAGA
188351	AAGCATCATG	GCAAAACCAAG	CAACTGATGT	GCACCCCATG	CCTAAGAATA
188401	TAAACATATT	GTTTGTATTT	GAGGTTTCAGT	TCCACTTGCA	GTTATGTGATA
188451	TTATTCTCAA	AGTTGACTTG	ATTCTTGCTG	TGCTGTGAAA	TATACAAGGA
188501	CAAAAAACCA	AACACCGCAT	GTTCCTCACT	ATAGGTGGGA	ATTGAACAAT
188551	GAGAACCTGT	GGTCAACAGG	AGGGGAACAT	CACACACCCG	GGACTGTTGT
188601	GGGGCGGGGG	GAGGGGGAAG	GCATAGCATT	AGGAGATATA	CCTAATGTAA
188651	ATGACGAGTT	AATGGGTGCA	GCACACCAAC	ATGGCACACG	TATACATATG
188701	TAACAGACCT	GCACGTTGTG	CACATGTACC	CTAGAACTTA	AAGTATAACA
188751	AAAAAATATA	TAAAAAATAA	AGAAAAGAAA	GATATTGTCT	ACCATGGGGG
188801	TGTGGGAGGT	CTGTGAGCTT	GCCTTTCTCT	GGGCAGGGGG	GTTGCCCAGA
188851	AGGCTGGGGT	TGGGCATTTA	TTCAACCTGT	GCATGTAGAT	ATGGTGTAAT
188901	AGAAGCGAGA	AAAGGCATC	TTACAGATGA	GAAATTTTGA	TTGGATACAT
188951	CCTTTGATAT	GGCACTCAGT	TACATGAAGA	GGCTTTAGGG	TGGGGTGCGC

```

189001 TGGAGACACT ACCTCTCCCC TGCTACATCC ACAACTGTGA GAGCTGGAGC
189051 ACTTTCAAGG GCCAGGAGAT TCTGCCTTCT CTTTGCAGAG GTGGGGATTG
189101 GTGATGGTAG ATGGTGTGCT GGCCAGGAGA GGAACAGAGG ATCAGAGAGG
189151 TAAAGTGACT CACATCCCAG AGCTTCAAAG AAATCTGGCC AAAGTAAAG
189201 CGGAGGCTGT GCCCCTCTAT TTAGAGAGGT GACAGCCTAG AACAGTGCTG
189251 TCCAGTAGAA TTTTCTGCAG TGTGGAAT ATTCTATAAT TTTGTCACAG
189301 GTGACTATTG AGCACTTGAA AAGTAGCTAG TGCAACTGAA TTTGTCATTT
189351 TATTTAATTT TAATAATTTT AATTCAAATA GCCACAAGTG GCTAGTGCTT
189401 ACCATATTAG GTCAATTCTA AAAGAAGTGG TACTTTAAAG AGATGAAGTG
189451 GGAAGCAAG AGTGAATTCA GGGAAAAATA CAGAGTTCAG GTTATGAAAG
189501 CCAGGATTCT GAAGGTACAT ATGAGAACTA TCTGGAAAGC ATCAGAAAAA
189551 TAAAGCTTCC TAGACCCAGA CCAGGACAGC CCAATCAGAG TCTTTTGGTA
189601 CATAACCTTT AAATGAGATC TACCATATTC ATTGGTAAGA AGAGGCAGAT
189651 CTGGGAATGT GGGTTGCAAA TGATAAAAGG TCTTGCCTGC CAACTTAAG
189701 ATTTTATACT CAATTTTATT GGCAGCGAGG GCCTCATTTGA AAGGGGAGAG
189751 TCACATGGTG AGTGCATTAG GCAAGGCTTG CAGCAGCCTG TGTAAGACAT
189801 GATGCCAATG GAAGATAGGA GATGATTGCA GAGCTGAGTG TTAAGAGATA
189851 CCTGGAGTAT TCATTTCTCC CTCAGAATAT GAGTGTGTTT ATTTCACTGG
189901 GGGCTGTCCA TATTCTTCTC TGGCTTGAAC ATTGGTTCAA AACATTTCTG
189951 CAGCAGCCTG TGTAAGACAT GATGCCAATG GAAGATAGGA GATGATTGCA
190001 GACCTGAGTG TTAAGAGATA CCTGGACTGT TCATTTCTCC CTCAGAATAT
190051 GAGTGTGTTT ATTTCACTGG GGGCTGTCCA TATTCTTCTC TGGCTTGAAC
190101 ATTGGTTTGA AACATTTCTT AGCAAATATG CTGCTGCATG CCTCCAGTCC
190151 CACTAAATGT TACGGTGATT GAAAAATTACA GTTGCTTCCC TTGGGCGCAG
190201 AGGGGGCTCT TTGTAATGAA ATAGAGATGC AGCAGCCATT TGGCATGTGG
190251 AGTAACAGCT TCTCTGGGAC CTCCAGCAGG GGCCCATGGT ATCATAAAAG
190301 GGGATGAGTC ACCAGGGAAA GGAACAATTG TGGGTCTCAG AGTGTGCCCT
190351 TCCCTCTCTA TGACTTCTGA GCTCCAATGA GCAATCTTAA CTGCTGTCAC
190401 CGGGAAGTAG GACACCGTGA ACACAGTGTT CGAGGCCAG CCGATGACTC
190451 ACTGCATAAC TCTGATAAAC TATTTTCATGG TTCACAGTGG GGAGAGAGAT
190501 TGCTTTTAAA AATTGAAAAG GAAAAAATAA AATACAATAT ATGTTGAATT
190551 GAAGTTTGA GATGGATAAA ATGCCTTTTC CCAAACAGCA AAGTATCAGA
190601 AGAGTCAGTT TTTTCTCTTT AATAGTGCCG GGGTAAGGGC ATGGGGGAGG
190651 GAGAGACTGG GTATCCTTAT AAGCTGCTGG GAGAATGGAA AGCTGGGGTT
190701 TTAGGAGTGG TTTTATCTTT GTTGGGAGAG TTCAGCTGTC ATCCTGAAGG
190751 ACAGGTGACC TCTGCCTGGG AAGTGTTTTC CTCTAGCTAT GCTGTTGGCC
190801 CTTTATGTGT ACAGTTACAC ATCACTTAAA AACGGGGATG CGTTCAAAGA
190851 AATGTGTCCT TAGGCAATTT TGTCAATTGAG CAAACATCAT AGAGTGACT
190901 CCCACAAACC TAGATGGTAC ATTTATGCTA AGTTTCGGGT GAATTTGGCG
190951 TCTTACAGAG CACATGATCG GCCACCATCT CACTCTGGCC CCTCCCCTC
191001 TCTTCCCTC CACCTTCTCG GAAACAGGGCC AAAGCCCTCC TCTTGTTCCT
191051 TGGCAGAAGG GATCATATCA TTTTCTTTCC CTGCACTTTT ATTAGGTATT
191101 TTTCTAAATA CATTTTCTTA AAAAAAATTC TCACAACAAC AATTATAAAA
191151 GCGAATCTTT CTACCTACTA AATTAATAAG TGCCATTTTA TGGAGCATCT
191201 ACCATGTTCT GGACATTATG CAAGATGAAG CATTTTAAGA AGACTTTGAA
191251 GAGGGCCAGG AGACTAAACC TCCAGAGAGA AAAAAATTTA GTCATCTGAG
191301 ATGTAATTGA TATCTGACAA AGGACTCACT TTAGCAGTGC CACAGATGTG
191351 GGCTCTATTA TTTTCTTGAA GGTCTGAGGA TTAAGTTAT AATATTAAAG
191401 AATGTGACTT TGCTGGCACC TGACTATTTT TCTTTAAGAG ATGTTTATCT
191451 CTTATCCTTT ATATTTTGTT TTGTAACCAT GAGTCAAGAT ATTTTATTA
191501 TAATGTCCAA GTCTTTAGAT GGGTTCTTTA GAAGCACAGC CTGAGATGGG
191551 TATCTGGTGC ATGTATCTTA TTGTGGAGAG CTCTAAGGAT GTGGGTGTGT
191601 GTATATAGAG TTTGGTGTGG GGTGGGGGCG TGTGTCCAGA TAAAGGAGC
191651 TGAGCAAGGA TGTGGTCTCA GCTGGAGACT AGCCTCAGTC TGCTCACACA
191701 GGGAGCTCTG GGGCATGAGT AACACCACAA AGATGGTTTT ACCTTAAGTC
191751 ACTCAGTCAT TGGCCAGGAC TGCCCTGGG GCAGAGATGT GGCATCATCT
191801 TTTCAGTAAG GAGGGCTTCT TTGATCCAAG AACAATTCTG TGGAGAATAG
191851 AGTATCTGTG TGCTGTCAGC AACTGTTATA GGCTTCACTG AGTCCCCGCT
191901 AAAAGCCATA TGTTGGAGCC CTAACCCCCA GACTTTCAGA ATGTGACTGT
191951 ATTTGAAGAC ATGGCTTTTA GAGAGGTGGT TAAATTAATA TGAGGCTGAT
192001 AGGGTGGGCT CTAAGCCAAT CTGACTGTGT CCTCATAAGA AGAGGAGATT
192051 AGGCTTTTCA ATGATCGCCA TTCTAACTGG CATGAGACGG TATCTCATTG
192101 TGGTTTTGAT TTGCGTTTCT CTAATGACCA GTGATGATGA GCTTTTTTTC

```

FIGURE 3, page 61 of 141


```

192151 ATATGTTTTGT TGGTCACATA AATGTCTTCT TTTGAGAAGA GTCTGTTCAT
192201 ATCCTTTTGCC CACTTTTTTGA TAGGGTTGCT GGAGAGGATG TGGAGAAATA
192251 GGAATGCTTT TACACTGTTG GTGGGAGTGT AAATTAGTTC AACCATTTGT
192301 GAAGACAGTG TGGTGATTCC TCAAGGATCT AGAACCAGAA ATACCATTTG
192351 ACCCAGCAAT CCCATTACTG GGTATATACC CAAAGGATTA TAAATCATTC
192401 TACTGTAAAG ACACATGCAC ATGTATGTTT ATTGCAGCAC TATTACAAT
192451 AGCAAAGACC TGGAAACAAC CCAAATGCCC AAAAATGATA GACTGGATAA
192501 AGAAAATGTG GCACATATAT AACATGGAAT ACTATGCAGC CATAAAAAAG
192551 GGATGAGTTC ACATCCTTTG CAGGGACATG GGATGAAGCT AGAAACCATC
192601 ATTCTCAGCA AACTAACACA AGAACAGAAA ACCAAACACT GCATGTTCTC
192651 ACTCATAAGT GGGAGTTGAA CAATGAGAAC ACATGGACAC AGGGAGGGGA
192701 ACATCACACA CTGGGGTCTG TCAGGGGGTG GGGGACTAGG GGAGGGACAG
192751 CATTAGGAGA AATACCTAAT GTGGATGATG GGTGATGGG TGCAGCAAC
192801 CTGGGTGTAG CAAACCATCA GGACGCGTGT GTATCCATGG AACAAACCTG
192851 CATGTTCTGC ACATGTATCC CCAAACCTAA AGTATACAAA AAAAAAAG
192901 AGGAATAAGA GATTAGGACA CAGGGACACC AGGGTATGCA TGCACAGAGG
192951 ATGACCTTGT GAAGAAGCAG CAAGAGGGAA GCCAAGGAGA AAGGCCTCAG
193001 AGGAATCCAA CCCTGCTGGC CCCTTAATCT CCAACCTCCA GAACTCTGGG
193051 AAATAAATTT CTATTGTTTA AATCACCCAA TCTGTGGTAT CTTCTCATTA
193101 CAGCTCTGGC TGACTTAATA CAGCAGCCAA CATGCACAGC AGCTAGCAGA
193151 CGAGGGTGTG CCAATTATAC TTTGGAGTGT GTCTGGGAAG AGAATTTGTG
193201 TGGGGCATTG ATAGTAGCCA CTACACCCAC TTACAAATGA GAACACCGTG
193251 ACCCAGAGAA GTGAAGTAGC CCACCTGAGG TCACACAGCC AATAAGCAAC
193301 GGAGGCAGAA TTTGATTGCC ATCTGACCTT ACAGGTGGTC CTCCTAGTCA
193351 CTACTTTGTA TCATCACTTC TGTGCAAGG CAGTTTTTCT CAGAAGCAGC
193401 AGATGTCACC AGTTAACTTT GACTTCAATT TCTTTTTGGT TTTTGTGTTG
193451 TTTTGTGTTT TTTTGTGTTT ATCTAAATTG TGCTTACCTT ATACAAAATG
193501 GAGCTTCTGG GGGAAATTGA GGCAACTCAG CACAATGCCT ATGTCTGTGT
193551 GTCTTCTCAA AGTATTGACT TTTACCTTAT GTAAAAGGTA AAAAAAATC
193601 TTATGTTTTT GGGGACGTTG TAGCATATTA ATCATAGGTT TCCTATACAT
193651 ATGAGAAAAT AATATTTTTTA TTTTAAATGT TTTTATTAAA AATGAATTTG
193701 AGCAGTTTTT CACACCCACA AATGTTATTT TTGGGAAATT AAGAAATGCT
193751 TTGATGGCTG TCATGTTAAT ACAATAATA ACTGTAATCA TTCTAAGCAC
193801 TGCCACTCCC AATTTGTAAT GAATGAACAT GGTCTTCATA GAGGCCACAT
193851 TGAGATACAA GAATAAATCA GTTTGTTCTT ATTAGAGCCT TATAATAGCC
193901 TTGTTTCAGT TTTTCTGGCT TGGTGTAATA AAGCCATTAC CCTCTTCAGA
193951 AAAC TAGAAA AGAAAGGACA AATAGAGATG GACATCTTTT GGTAGCTGCC
194001 TTCTGCTGAG GGCTCCCACC ACCCACCTC TGTCTGCCCC ATGACAGCCA
194051 GCTCCGCAAA CTTTAATGCT GAACTATGAT TAGATATGCA GAGAGAGGCA
194101 GGGTGTCCGG GGCAGACTCT AGGGCACCTG GAGAAAGCTC CAGCCTAACA
194151 GCATTGTGCTG TCACACTCTG GGTCTCTCTG ACTGAGTTCT GGGACTTGAC
194201 TGAGTGGGCT CAGAGGATGT AACTGGAAGT TTTAGTACGA TGAAGACATT
194251 TTTTGGCATT CGAAGGTATG ACTACATCTG AGATATAAGT TCAAAGTATG
194301 TGAAAAAGAG GAAAGGGGTG GGGGAGTCTT AGGAAAAACA TCTGTATCTC
194351 CTCTCTCTCC TCAGCTTCCC CTCTCCACGT TACTCTCCCA AAGGATTAGT
194401 TAATTCTTTG TATATGATAT TATGTGGCAA TTTGAAAGTC CTTATCTCTT
194451 AGAGATTTAT GTACTCATTT ATTCAGCAAG AAGTTTTGGG TGTCTGCTTT
194501 GAATCATGTG TTGGGGATAC CATGGTAAGC AGGATGGGTG TGGCCTCTGC
194551 CCTCCTGGAG CTTACCATCT ACCTGGAATA TTAGAAGGGA TTTTATTTC
194601 AGCAGACATA AAGTGCCAGT CATTGTGCTG AATTAGTGGT TCTCAAACCTT
194651 AAGGGTGCAT CAGGATCACC TGGAGAGCTT GTCAAACCAC ACATTGCTGG
194701 ACCTTCATCC CAGTTTCTGA TTCAGTAGGT TGGAGGTATA GGCAAATTTG
194751 GAAATTTTTA TTTTAAATAA GAGCCCAGGT GATGTTGTTT TTGCTATTCT
194801 GGGGACCACC CTTAAGAAC CATTCTGGGA AGCCTGTCAC ATGGATTTCG
194851 TTAAGGCATT TTAATGGTTA AAACCATCTG GGATGGTGGT GGGCCACAG
194901 GCTGAGATCT TCTAAATGTC TAAAAGGAAC TAAGTTCCTT TAGAGGAAAC
194951 TTGGTTTTCT CTTCAGGCAA AGTTCCTGTT TTATGAAAAC ACTCTTTTTT
195001 AAAAAAATTG TTAATGTATA TCTGGATCGT TTTAGCAGTT TAAAGAGCTA
195051 ATGCAGTAGA TGAAGTGACA GGGAGTTTTT CATTTAACAG TTGCATCTGT
195101 ATGTCATTTT CTCCTCGAAG GTTCTATAAG ATAGAGCAAT AGTTCCTCAA
195151 GTGTGTTTCC AGACGAGTGG CATAGTTAGA AATGCAGAA CTCAAGCCCC
195201 ATTCCAGACC TACTGAATCA GAAACACTGG GTGTGGGAGC AAGAATCTGT
195251 TTTAACAAGG CTTCAGCTG ATTCTGAGGC AACTCAAGT TTGACACATC

```

FIGURE 3, page 62 of 141

195301	TGAGATAGAT	GGTAGTGAGA	ACTAGGCTCA	GGCTGAATCT	GATTCTCCCA
195351	GCTCCCTTAA	GACGGTTTAC	CAGGATGACT	AAGCTTCAGT	TTTTCTATCT
195401	CGTAAGTCAA	AAGTCTATCC	CTTGTTGTCT	AATATCTTTC	AGAGCTACAA
195451	GAAAGATAAT	CATGACCTTT	CTGAAATGGT	TTTACTAGCA	AAGATGAAAA
195501	TTTCTAACTA	ACCATAAATA	GACTTATTCA	GTGAAAGAAA	GGGGATTTCAG
195551	ATGCAGCAGT	GTGACCTTCG	GTTGGTTCAT	AGCTTGTCTG	AACCTTFACTT
195601	TTCTATCTG	AAAAGTGGGC	AGAAAAATGT	CATTCTAGTC	TACATTGAAG
195651	AGTTGTTGCA	AAGATCAAAT	GGTATCTTTG	TGCTATTAAA	TGGTATCAAA
195701	TTTTTGTGGT	ATCAAATGTA	TATCAGCATG	CTTTTTAAAC	TGTAAGATGC
195751	ACACAAATAT	AAAGATTATA	ACTTTGGGCT	GCTCACCCCT	AGCTTTGTTT
195801	TTTTCTATCA	ACAAAATGGG	AGTAGTTGAA	TTACTTATAC	CTCTATGGA
195851	ATTTTAACTA	ATTTAGACAA	CTAATAGCAC	AGTAACTCGA	GCTCTTCTAA
195901	GGTAAAGTTT	TTCTTACGTT	TATGTTTTGT	CTTTAACATA	CAAGGGTTGA
195951	AATATGTAGA	AATAGTATAA	AATCTTTTAG	ATTTTATTAT	AGTGTATACT
196001	CTTATTTGAA	CTAGTCACAT	TCTAGAGCAG	TGATTCTGAG	AGGGCAGCCT
196051	CCAAACCAGC	AGCATCAGCA	TCAGCTGGGA	ACTTGTGAGT	AATGCAGATT
196101	CTCAGGTACC	ACACCAGACC	TGCTGAATCA	GCAAGTCTTG	GGGTGGGACC
196151	CAGAGATCCG	TTTTAACACG	CCCACAGGTG	ATCCTGATGC	TCACACAAGT
196201	CTTAGAGAAA	GGCATTATT	TGGGTCTTAA	TTGAAGGATC	TGATAAAGGC
196251	CATCATTTTC	CTGGAACAGG	GTGATGTCTT	CGTTTTTCCA	GCATGGATTT
196301	GAAACATCTG	TGTCCAAACT	CGTGCAGCCA	TTATTGGATT	CCTTCATAAA
196351	CACATTCTGT	TACTGCTTGC	CTGGCATACA	GAAGATCTGG	AATGCCACTC
196401	CAGTATACCC	ATTATGAGGC	TGACTTCAGG	GTGCAAGGAA	ATTAAAGCTG
196451	TTTATCAGAC	TCTTTTCCCC	TTAGTGACAG	GAGAAAGGAA	TCTTAAGCTA
196501	AGAAGGCTTC	AAGTTGGGTC	TATGTATGAA	AAACATGAGG	CGTGACAAAC
196551	ACAGTTTGAA	CGGACTTACG	TTTTTTTTGA	CTTTTCCCTT	TGAAAATTGAA
196601	AATGAGTCCT	TTTGTGGGCA	GCACCAAATT	AGTGGTGCTT	ACTTAAGAAA
196651	TACTGGAGAC	AGATTCAATC	CAGTTTGTTC	CATAACTTAG	GTGGCAGAAT
196701	GGCACTTTTC	CCTGGCCACT	TCCTTCCTTC	TTCCCTTCT	AGGAGGAAAT
196751	CTTAGGTAGG	AGAGGGGAAAG	GGACTAAGGC	TGTCTGTACA	CAATGAGCTA
196801	CGTTTTGGGA	AGAGGAGCTT	AGTGTTTTAA	CAAAAGAAAG	GTTTGTCTGT
196851	GTTGTAGAGA	TATGACTTTG	TCCACTGCCT	ATGTTTGTA	ATAAAGTTTT
196901	ATTGGGACAT	AGCCCACTC	ATTTATTTAT	GTATTGTCTG	TTTTCACACT
196951	ACAAAGGCAG	AGTTGGGTAG	TTGTGACAGA	GACCACGTAA	TCTGCAAAGC
197001	CTAAAAATTG	TTTACTATCT	AGCCCTTTAC	AGAACATATT	TGTCAACCCC
197051	CCTTGCAGAG	GTTTCTTCTG	AGCTGCTTGA	AGGAAACCTT	GACGGAATCA
197101	TGGGACAGGA	AGGACAGTGG	GAGGTGAACA	GTGTGGTGAA	ATGCCTGCGG
197151	GTTCCTGTGG	AGTCCACAGA	AAGGAAACCA	CAGAGAGGCG	AGATTCCATA
197201	TTGCCCATTT	CAGTTGGGTT	CAGTATGGAT	TTTGAGAAAT	TATTCTATTT
197251	AAAAATAAATA	AATATTTTAA	ACTTGAGTAT	ATATTTGCAA	TTGTCTAATA
197301	CAGTCATACA	CTGCATAACA	ATCTTTTGGT	CAATGACAGA	CTGCATGTAC
197351	AATGGTGGTC	CAGTTAATGA	AGCTGAAAAA	TTCCCAACAC	CTAGTGCCTAT
197401	CATAGCCATC	ATAACATTGC	AGAGCAACAT	AGCCACTCAC	ATACTTGTGG
197451	TGATGCTGGG	TAAATAAACC	TACTACACTG	CGAGTCATAT	AAAAGTGTAA
197501	TGCATATATT	TATGTACAGT	ATAGTGATGA	CAAATGACTG	TTACTGCTTT
197551	ATGTATTTAC	TATACTTTTT	TTTTTTGAGG	TGTGGTCTCA	CTCTGTTACC
197601	CAGTCTGGAG	TGCAGTGGCA	CGATCTCGGC	TCAGTGCATC	CTCCACCTTC
197651	CAGGCTCAAG	TGATCCTCCC	ACTTCAGCCT	CCCAGTTAGC	CGGGACCACA
197701	GGTGTGCGCC	ACCACACCCA	GCTAATTTTT	TGATTTTTTG	GTAAGGATTG
197751	GGTTTCTCCA	TGTTGCCAG	GCTGTTCTCG	AACTCCTGAC	CTCTGGTGAT
197801	CTGCCTGCCT	CGGCCTGCCA	AAGTGCTGGG	ATTATAGGAG	TGAGCCACCA
197851	TGCCTGGCTT	GCTATACTTT	TTATCATTTT	TCTAAAGTGT	ACTCCTTCTA
197901	CTTATTAAAA	AAAATTAAC	GTAAACAGC	CTTGGGCAGG	TCCTTCGGGA
197951	GGTATTTTCA	AAGAAGGCAC	TGTTATCACA	GTAGATGGAG	GCTCCGTGTG
198001	TTTACTGCC	CCTAGAGACC	TTGTAGTGGG	ACAAGATGTG	GAGGTGGAAG
198051	ACAGTGGTAT	CAGTGATCCT	GACGCTGTGT	ACAGTAGAC	TAAGTGTAT
198101	GTTTGTGTCT	TCATTTTTTAA	CAAAATAGTT	GAAAAAGAAA	AAGAAAGAAA
198151	AAATGCTTAT	TGACTATCTC	CTAGTTAGGA	GAGATATGAA	AAAAAGAAAA
198201	TATTTTCGTA	CAGCTGTACA	ATGTGTTTGT	GTTTTAAGCT	AAGTGTATT
198251	ACAATAGAGT	CAAGAAGTTT	AAAAAATGTA	CAGTAAGCTG	CTTAATTAT
198301	TATTGAAGAA	GGGAAAAACT	TTTTTATAAA	TGATAGTGAT	CCTAAGTGTC
198351	CAGTGTATAT	AAGTCTGTAG	TAGCGTACAG	TAAATGTTCTA	GGCCTTCGCA
198401	TTCACTCACC	ACTCACTCAC	TGACTCACCC	AGAGCAACTT	CCAGCTCTCG

198451 GTGCTCCATT CATGGTAACA GCCCTGTACA GATGTGCCAT TTAAAAATC
198501 TTTTATACTG TATTTTTACT GTACATTTTT AATGTTAAGA TACACAAGTA
198551 CTTACCACTG TATTACAATT GTCTACAGTA TTCAGTGTAG TAACATGCTG
198601 TACAGGGTTG TAGCCTAGGA GCAATAGGCT ATACCACATA AACATAGATG
198651 TGTAGTAGGT TATACCATCG AGGTTTGTAA TAAGTACACT CTATGATGTT
198701 CACACAATGA TGAAATCACC TGAATGACAT ATTCCTCAGA ACATATCCTC
198751 GTTGTTAAGT GATGCATGAC TTATTTCTTC CTGGTGTGG GTGTTACAGG
198801 AAAAATACT GAGTGTTCG CTTATTTGAT ACATACTTG CATCCATTAT
198851 ACTATGTAAT GTTCACAACA ATTCATGAG ATGAATATTA TCATCTTTAT
198901 TTTATAGATG AGAAAACTGA AGTGCAGAAA GCTTAAATAA CACAGTGTTA
198951 CAGAGCTATT GCTAGAGGCT TGATTTAAAT GCAGATTTG TTTTATGCC
199001 AAAGCCAGCA TTCTAAAGGA GTGTTTCTGA ATGTTGGCCT CTCTAGCTAG
199051 GTTGGGGTGT TTTTCAAAC GCAGGTTGAG AGGTCAGTTT AGTGAGTTGC
199101 AACCAGCATT AAAAAAATAA TTGAACAGGA TGAAAAACAC CAGAGTGTGT
199151 CATATGTAGT TTGGGTAAAT AGGTCTTGGT GTATGAACT TTTGTTTCGA
199201 CTATAAAGAT ATTTATAAAC ATACATATAT AAGCACATTT CTGTGCACTG
199251 GGCAACAATG TAAATGATAT TTCTTACCAT GTCGTAGTTT GAAAGCCAAG
199301 GGAGTGAGCA AGGAGGAATG AAGATAAAGA AAAAATGGGA GAGCAAGAGG
199351 GAAAAATATG AATGAGTGAG AGAATGAATA ACTGTCAAAG GGACAAAGAG
199401 ACTCGAGAGG GAGAGGAAGT AGAAAAGAGT GGGGAAAGAG GGAGAATGGA
199451 CAACTCAGAG AAAGAGACAC AGAGATTGAG GGAGAGTTGA GGGTGGGCAA
199501 GAGAAGGAAG ACATCATATG GTTCTGTCTT TCATTCCACT CAGCAAGCAC
199551 ATGTCCCTAC TTGATGGCAG AACTGGAGAT CTCTCAGGAG ATTTTAGTTT
199601 TCATACACTT CTCATGCTGT GATTCTCTTG TCGTTCTCAG TGTAAGTAAA
199651 ATGAAGATCT TTATTAACAT GGCTTCTAGT CATTACAGCA AAAAGACACC
199701 TGCACGTTTA TGTTTATCAC AACACAATTC ACAATTGCAA GGATATGGAA
199751 CCAACATAAC TGCCCATCAC TGATGAGTGG ATAAAGAAAA TGTGGCATAT
199801 ATACACCATG CAATACTACT CAGCCATTAA AAAAAGAATG AAATACTGTC
199851 TTTTGCAGCA ACCTGGATGG AGCTGGAGGC CATTATTCTA AGTGAAGTAA
199901 CTCAGGAATG GAAAACCAAA TACCATATGT TCTCACTATT AAGTGGGAGC
199951 TAAGCTATGG GTACACAGAG GCATGCAGAG TGGGATAATG GACTTTGGAG
200001 ACTCAGAAGG GAGGAGGGTG GGAGGGAGGT AAGGGATAAA AGACTACATA
200051 TTGGGTACAG TGTATAC'TAC TCGGTGAGGG TGCACTAAAA TCTCAGACTT
200101 CACCACTACA AAAGTCACCC ATGTAACCAA AAACCACTTG TATGCAAAAG
200151 GTATTGAAGT TCTATATGCA TGTACATATG TGTATAGGTA TGTATATAT
200201 ATATGTGTAC ATACAGACAC GTGCAGGTGT CTTCTTGATA TAATGACTAG
200251 AAGCCACGTT TAATAAAAAAT AATATATATT ATTTCAATAT AAATAATAAA
200301 AATAATAAAA ACTATGGCTT CTCCATAACA GTATTCTATC TCATCTGTTG
200351 CTCAGCTGAA AATCAGTGAT CTGAACTGAT GTGAAAAAAA AAAATACGCT
200401 GTGTTGAAAT TGCTGAGAGA AGGTATGAGA TCCCTAGTAC ACTGCTTTCT
200451 AAGGAACTGG CAAAGGCAAT TTTGAATATA TGTAATTTTT GTCTTTTGAG
200501 CTGACTAATT TTTATTCTAC TGTACAGCAG CCTTTTATGT TTTAGTGGGA
200551 AACCATAGAT AACAACACA TTTTAACATC TTCTATTTC AGGGAATTCT
200601 ACATCCATTA AGTATCTTAC TTTCAAAGGA TTCTGGACTC ATTTAATGAA
200651 AAGCCCATTT GTACAGACTT GGAAATTGAG TGAACATTTG TATGAAACTT
200701 CCCTGCATAC CGATGCTTTC ATGAGAATTC TATTACTCAA TCTCAGCAGC
200751 CACTCTACTA GATTACACTT ATGTTAATTT TATCACAGAA ATFGGAGCTC
200801 TGTGAGTTTA AGTCTCTTGC ACAAATTTTC ATCTAAAAAG TGGAGAGGCT
200851 AGATTCTAGC CTTGATTTTC TGACCCCAA TTTTATATT TTCCCATAG
200901 ACCAGAAATA GCAACAATAG ATTGAAAAAT AATGTGTTAC AATTTGGAAG
200951 AAAAATTTTA ATTTTAAGTC TGAGTATGGT GCAAAGTCTA AAATGCCCAT
201001 TGTTTTGCTG CAGCTGAGTA TTCTAATTTT CTCCTCCCC AGCCCAAGGG
201051 TAGTTGTTTG GGTAGTTCTT TATTTCTAGC CCCCATTAG TAAATTATAT
201101 TGTTATGCTT TCTTGTGATC CATTATGCG CCTTCTTCAC TGAAGATTGT
201151 TATAAACACC AACTTTATTC TAGTTACTAA CAATGTTGCA TCAAGTAACT
201201 TGGGTAGATG CTTATTGTCA TCAGCTTAGG TGGGTATTCT TTTTAAAAAT
201251 AAGTGCTGAA TGTAAGGTTG AGTAAGTAGG ACCCACCAGA GTGAACCTCA
201301 TCTCAAAGC CATCATTACC TGTTAGAAAA GAATTGTGTT TTTCCAGCT
201351 TGCCAAAATG ATGCTGCTAT ATATCCTATT CATCTGTTT GGTCTACCA
201401 GTAACATTTA AAAAAAAGA AATATCTAGG AAAAATGCTG TGGTAGTTTT
201451 GCTCCAACCT CCATGCTAA AACTTTATG TGTGTTGTGT AATAGGACCC
201501 TTCAGCCAGG ACATCTGTC CTACCTTGC CCCTAAATTT CCTATTTTT
201551 AATAAGGATT CATGCCCTCA AATGTCAAAA TGTTAAAGCA TATTATTTAT

FIGURE 3, page 64 of 141

201601	TCTTATTTAA	TGATTTTTTT	CTTACCTTCA	AACGGTAGTT	GCTAATGGAA
201651	ATGTTCTCTC	TTTCTCTAC	TGGTTTTATT	TTGCTGAGTG	TTTATTACAT
201701	TCAACCAAAT	ACTTCCAGGA	AGCTGAGATT	CAGCTCTACA	CTCCATGGAA
201751	GCTTTGTCAA	CGCAAGCAAA	ATATACATCC	CTGTGAAAAG	ATACAGTATT
201801	CTTACCTCAT	TATAATTTTA	ATAACTGGTA	GTATCTGACT	GTTTGTTCAT
201851	TATTTTCAGAG	ATCCCAGAAG	ACCCACTTGT	GGCTGAAGAG	TACTACGCTG
201901	ATGCATTGTA	TTCCTATTGT	GTAGAGAGTG	ATGAGGAGGA	AGAAGAAATA
201951	GCGTTAGAAA	GACCAGAGAA	AGAAATCAGG	AATGAGGGAT	CCCAGCCTGC
202001	TTACAGAACA	AACCAACAGG	TATGTAATGC	TCCCTGTCGG	AAGCCATGGA
202051	ACTGTTCAAG	GTACTGATTG	GACTCTCCCA	GAGAAGAAAG	GAAGTCTTAT
202101	AAGGTGAAGT	TGGGGACATG	GGGAACAGGG	TTATTATAAT	AGCTACTTGT
202151	GGTAAGTCTG	GCTTTTCAAG	GTCCAGAGGC	AGGCAGGGCC	CTATGGAATT
202201	TGGAGAATCT	GATCTGGACC	ATGTTGATGG	GGGAAGAACT	GGAGCATGCT
202251	GCACTTATTT	GGGGGGTTGG	GAGATGGCAC	ACACCATATT	CCCACTGAGG
202301	AGGGCTTCGT	ATACAGCTAT	TGAATTAAAA	AATGCAAATA	TCTCTTTAGC
202351	AGAGAGAATG	GCACTTTTTA	TATACTTTTC	TGTCTGGTAA	TCATATTTTG
202401	GGGTCATATT	CACAAATTGA	ATGCAAATAA	AATTTGTAAA	GACTGACTTA
202451	GTTTTGGGGA	TCAGAACCAA	AGATCCTGGG	CTTAGGGGAT	AATCTGTCTA
202501	GCTACTTTTA	GCCTCTGAGG	ACACATTCTT	GCTTAAGTGG	TGAAGTCTCT
202551	GAGTATATGC	CCTATGCCCT	TGTAGTAGAT	CTCTTTTAAC	TATAGCAAGA
202601	TTAAGCCTTA	TATGGGCCAT	AGGTCAAGAA	ACACCCTGA	CATGTGCTTT
202651	CAGTGTGAG	TGTCTGCAAC	AGAGGAATAA	AAAGCAAGAG	GCTTATGAAG
202701	ATGAAGGGGA	AAGCTTTGGG	CAATGTGCAT	ACATACCTTC	TTTTCTTGCT
202751	TACCTTCCAA	TCCTAAACTT	CCATGAGTTA	CAGAAGCTTT	TGTTAACTGA
202801	GAACCATGCA	GCTACTAAAA	TAAAAGTCTA	CCAAAGGGCA	CATGAGTGAA
202851	GACTCAGGTA	GAGGAGATGA	TTTTTGGAGT	GAAGATGATT	CACTCCAAAA
202901	ATCCATTCAA	CCATTTTTTA	TAAAGACTAT	GCAATATATC	ATAATATTCA
202951	ATCCATTTCAG	CCACTTAAAT	CCATTCAACC	ATTTTAATAA	AGATTATGTG
203001	TCATAATATT	CAATAAATAA	AAGCAGTAAG	AAGTGCTCTC	CAATTTGATA
203051	TTAAGAGAGA	GAGGCAAGTG	AAGGGTACAG	GTATGGGGCC	AAGCAAAAAA
203101	AGGGATGAGA	TAAAGAGGAG	AAAGAGATGA	AGAGAAAGGA	TTAGAGAGAG
203151	ATAATTTAGG	AGACAAATAC	ATGAAGAGAG	AAACAAATAC	ATTTGGAGAA
203201	AAATACAGCT	AAAGGGGGGA	TTCAGAATGC	CAAAATAAAA	ACTTAGCTTA
203251	TACCGTTTCC	CCATTTTTTT	CCAACGGAAT	CTGGAAAACA	ACAGCACCTC
203301	CTACCACAAA	TCGAAAATAT	AATTTCTACT	ACCTTCTGAG	CCACTGTCTAT
203351	AAACAACGTG	AACGGATATT	ATTGCAGCAT	TACAGAGCCT	TCATTCTGGG
203401	CCTATGGTTG	CAAAACACAT	GATATGCAAA	ATACATACAG	TGCTCAATTT
203451	TTGGTCAAAG	CATCAAGCGG	TAAAATTTTA	GCTACTAATA	TTCACTTAGA
203501	AATGTTTTTT	AAGAAAATAA	AACAGATTTA	GAACCACATG	AATAAAATAC
203551	TATATGGCAA	ACAGCTCCTA	GGTCAGGAAA	TACAATTTTT	CCAGTCTCAG
203601	AATATCCATC	TTTGGCACTT	AGAATATAGG	GTTGGAAAAC	AGATTGCTTG
203651	CATGTCTTTA	TAACCTGCAG	TTTGCCTGAC	CTTGTTCAAA	TTACTGAACT
203701	TCACTGTGCC	TCAGTTTTCT	AATCTGTAAA	GTGGGAGAAT	AATGGTTTCT
203751	ACCTCACAGA	GTGGTTTTGA	GGATTAAATG	AAGTAATCAA	TATAAGTAA
203801	TTAGAATAAT	GCTCAGAATT	TAATAAAATA	CTTCATGAGA	TATTAGCTAT
203851	TATTATTATG	AAGTTACTCA	GTCAAGGTAT	CCAGTACCTC	TTTATGATAC
203901	TGCCAAAACT	CCTTAATGTT	AAAGTGAGAT	TTTCTAACTT	GCTTTTAAGT
203951	AATTTTTTAA	AAATTCTTTC	TTATTAGTCT	TAAGGCAGAT	GATAAACATA
204001	AGGGCAGCAG	TTTTGTTCTC	TGGGTTGTAT	ATCTATCACA	TGTTACATGA
204051	CAGATTGTGA	TTGATTTTAA	GTAATCTATT	GGGACAAGAT	GCTAAGGCCT
204101	CTCATATGGT	TTGGCTATAT	CCCCACCCGA	ATCTCATCTT	GAATTGTAGC
204151	TCCCATAATT	CCCATGTGTT	ATGGGAGGGA	CATGGTGGGA	GATAATTGAA
204201	TGATGGGGTG	GTTTCGCCAG	TACTGTTCTC	ATGGTAGTGA	ATAAGTCTCA
204251	CGAGATCTGA	TGATTTTATA	AGGGGTTTCC	TTTTTCACTT	TGCTCTCATT
204301	CTCTCTTGCC	TGCAGCCAGG	TAAGACATGG	CTTTCACCTT	CCACCATGAC
204351	TGTGAGGCCT	TTCCAGCCAT	GTGGAACGTG	GAGTCCCCTA	AACCTCTTTT
204401	TCTTTATAAA	TTACCCAGCC	TCACGTATGT	CATTATTAGC	AGTGTGAGAA
204451	CAGACTAAAT	ACAGCTCTC	ACATACATGG	TGGTATTTTG	TCTCACAAAC
204501	CCTGTTGGGT	AGTTATCTTA	TTCTATTTTT	CTTTTTTTTC	TTTTTTTTTT
204551	TGAGACAGTG	TCTCGCTCTG	TTGCCCAGAC	TGGAGTGCAG	TGGCATGATC
204601	TCTGCTCACT	CTAATTGAGG	AAAGTTAGTT	TCTGAGAGAG	GTGTAGCCTT
204651	CCTGCGGTCA	CGTAGCTAGG	CAAGGATCAG	ACTCATGCCT	CAGGCCACCA
204701	TCAGTCACAT	TCTCAAGTCA	ATGTTTTTGC	TACTATAGAA	TATATATTGA

FIGURE 3, page 65 of 141

```

204751 CCTAGAAATGG ACTTGGCATA AGGGAAACAG AANNNNNNNN NNNNNNNNNN
204801 NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
204851 NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
204901 NNNNNNNNTGT TGCCAAGTCC ATTCTAGGTC AATATACATT CTATAGTAGC
204951 AAAACAATA CACAGTAGAG CAATTTGTAT AGATTAGCAA AAAATAGAGT
205001 AATTTGTTTA GAGTAGCAAA AACAATTACA CAATAGAGTA ATTTGTATTA
205051 GAGACAGGTA ATTACAACCC CATTTGTTTT CTCCAGTAA TTCAATGTAG
205101 TTTCTCCTTC CCCAAAGGTG ATGAATGTGG ACTCTTCCCT TTCAGGTTAT
205151 TTTCATTAG AACATACAAA TTACACTACA GAACTCAGTC ATGGTCAACT
205201 TTGTGAATTG AGAGAGACCT GCTGCCATCT CTCAGATTGG CCTCTTCTCC
205251 CCTTCCCTG GTCTTGCCCT GGACCTCTGA GTGTGCCAGG GTCTGCTTAG
205301 ATGGTCATCA CACAAATGCC TTCTATGTGT GTAATCAGAT CAAAGTTGAT
205351 TCCCTTCCT TTAGATGGAG CCAAAGTCAC ATAGTTATTT TGATGAAAGA
205401 AGTGCTTTCA AAAAGAAACA CAGCCATGGA CTTCATTGAG ATTGATTACT
205451 GAGTTCTTTG TGCCACCCAT GACAATCTTT TTAGTAGCAG TGTCTCCAA
205501 GCAGTTTAT TAAGCACCTA ATTGCTGATG ATTGCCAACT GTTCTCTGTC
205551 TGTGATAAGC ACAGCATCAA TAAAACCTTT ATCACAAGCC ATTATCATAT
205601 TGTTGATGGC TCCTCTGCCA AGTCTGTGGT CACTGAATTG GAGCCAGCAT
205651 CTTAGATCTC AGGAGAATTG AGTTTATAGC TGCCGTCATA ACAGGGTTCT
205701 CCACAACACT GTTGCAACCT GTCATAAAA AGTGTTTTAT GCGCTCTAAT
205751 GGACATGGTT TAGGGCTACA GGCTGACGAG TGTTTTTACA GACTCTTCTG
205801 TCTTTCCTTT GCTGCCTTGA CTATCATTTT TCTCTCCAAG ACTAATAAAT
205851 GGCTCAGATG CATCCAGTAA TACACATACT AGGTGGACAA TAATGACTCG
205901 ACACAAATCT TCCTCGGAAG GGCTTTGTTT AATGAATGTG GCTGTCACTG
205951 AGGCTTGTTT TAAGAAGGCT CTTCAGGACT ATGGTGTTTG TTCTTCCTAA
206001 GATGAAAGGC GGCAGAGTTC CACTATTCCA GTTAATTCTG AAGTTCTCAA
206051 TGCTTTTTTCC CCAAATCATT CAGAGGTTTT GAAATTCCTA GGAAAAACAA
206101 TTGATTTTCT TCTTGGAACA TTGTCCCGGG GCAGAGAACT GGATATGCGA
206151 TAGGCAAGGC CTGAGATTCT GCTGAGGACC CTTGGATCTG ATTGTCATGA
206201 TGGTAGGTGC CTCCAAGAGT TCCTGCTGTT AGTTGAGTCA TTAGTTTAAT
206251 CAGATCATAG TAATGATAAC AGTAACAGCT AGTATTTCCA GAATCTTCAT
206301 TCTATGCTCG GTACTTTGCA TGCTGTGTCA GTTCAGGTAC TCCAGGAAGC
206351 AGGTGATGAG ACAGAATTAG AAATAAAAAG GAAATTCCTA TCAAGTAGGT
206401 GGGAGGAGTC TTAAACCATA CTGATATATT TGAGGGGAAG GAAGGAAGGA
206451 AGGAAGGAAG GAAGGAAGGA AGGAAGGAAG GAAGGTGGA TGAGAACCTC
206501 AGGCTGCAGT GCAATTCTGA TAAAACCTTG GCAGGCAGGC TGGCAGGCAG
206551 GAAGGAAAGG TAGGGAAGGA GGGAGGGAGG GAGAGAGAGA GGGAGCAATT
206601 GGATGGGAGC CTCAGGCTGC ACTGCAATTC TGAAAAAGGT TTGGCCCTGT
206651 CAAGAGGGAG CGCAAGGTGT GTTGCTGGAG TCCAGCACTG CGAAGAATG
206701 GCCTGGCCCT AACTTCCCCA TAGTGCTTAC ATTGCCTGGG AGTTGCCTGG
206751 GAAGAGCAGG GCCTCAGCGT GGACCCTGCA TTGGATCCCC GAAGGTGTTG
206801 TAGCCGAGGG CTGTCAGATC ACTAGGCTCC TTGCAGCAGG GTCTATCTTG
206851 AAGGGACTTG TAAGTGGCAG ATCTCATGGC TGTCACAGGT GTATTATTTC
206901 ATTTAATTCT TGCAACAACCT CTGATGCATA TATTCTAGAT GAACTGCATC
206951 AAAC TAGAAT TTAAC TGGCT GGAATTCAAA TAAGGGAGAA GGCAGAGATA
207001 AAGGAGAAGG TGAAGGTAGG AGAAAGGAAG GGATCATGAG TTAGGGATTT
207051 CATGTGACTT TTAAGTGAATG CTCCAGAGTC AAAATGAGCT GAGAGATATA
207101 AATCCAGTCC CTCTACTGCA TCTCAGTTCC TGCATCTCTC AGACTGTAAG
207151 CCTCTTGTTG CTTTGAATTA TTGTTGTAGA CTTCCAGTAT TTCAGATACA
207201 TATTTTTCAC ACAATCTAGT CCCTACGTGC AAATCAGCTA TTTCAATTGC
207251 TCAAAAAAGA AACAGCAGTG GAGGATATTT CAAGTGCTGA CTTTAAAACC
207301 TAGGTCCCTT GAAAGATACT GTTTGTGACA TCCTAACTTC ACACAAGAGG
207351 AAAC TGAGGC ATAAGGAAAT TAAGTTACAT CTCCAAGACC ACACAGCTAG
207401 TAAGTAGCAG AACTGGACTG TATGAATTTA TTTT TAGCCT CTGCTTTATA
207451 CAGTCTTTCC TCTGCACAAC AATTAGAATT GCTTCTCCTC CACTGATGAT
207501 AGAGTAAATG CGTTAGGTGC AAGGGAATAG CTGCAGGGCC ATTGCATTAT
207551 CTGGTACTCT GGCAAGACCT TTTTACTAAA CAGAACTGACT GTGCTATGTA
207601 CAAGGCAAAA TTTAAACCAG TTCCAGGAAG AGTGCTGAGT TATGAAAAGT
207651 AAAACAAAAA AGACCCAACA TCTCTCATCT GTTATGGGAT ACAGATTTAT
207701 CTCCTCCTAC TATGTCTTTT TCTTTTFTAA GATAAGTTGC CAGAACTGTT
207751 GAGTCCCAGT AGTGGGACTT ATTTGCCTGT TATTTT TACA TGATCTGACC
207801 TAATTAATTT ACCTTCATAC TTGGGAAGAA ACAC TTTTGTG TCTTAAATCG
207851 ACCTTAGAGG TCATCAGTTC TAAAAAGCAG ACTCCAGCT GTTTCAGATT

```

FIGURE 3, page 66 of 141

```

207901 GTCGATCATT TTTCCATTAG CATTCCGCTG GCCTGTGTCC CAGGCTGTAA
207951 AGCCATCAGC CTTGCTACAG TGTTAGTGGA TACTCCCAGT TTGGTGTGTC
208001 ATTCCTTCTA GGTGATGGGC CTTCTGTAGA CTGTGTGTTG CTCAAAGGAG
208051 AGACTTTGAG GTGACAATTT CCACCCCTAC CCCCATCCC AGCCCTCATT
208101 TCCGTCATGA TTCTTCCCCC TTCTCTCTCT CCCATTTCTT GTCCAGATCA
208151 AAGCATAGCT CATTGCTAGT CATATTAGGA CCAGTCAAAC CTTGCTGTGG
208201 AATACAGCAC AGTGGGGTTT GTTTTTTTTT TTACATTATA TCACTTACTT
208251 CTCTTAACAA TTTGATATAC TATTCTTTTT TTTTCTTCTG GCCTTTATTT
208301 TATTTTAGGT TCAGGGGGTA CATGCGTGAG TTTGTGGGCT TTGTAGGAGG
208351 CTTAGTCATT AAGTCTTTAA AATTAGGTCC ATTATAGGGT TTAGGATCAC
208401 ACCTACATTT TTCACCCCAA TACCAAAGCA TGGAGAAAAA GGAGAAAGGC
208451 AATAGGGTGA AAAAAGGGCA AAGCAAATCT GAGCAGGAAT GCAAAGTGTC
208501 TGAGTGTTC CTTCAGTGTG AAGATGGAGA GGTCAACAGC CCCACAGTCT
208551 CCCTTGTTGG TGGCTGATCA GAGGTCCACA GGTCAATGGG CAAATAAAGG
208601 GACGGTGACC TTCACTGTGA GATGCCCTGT GCTCCGCTGT GCTGCTCCTG
208651 GAACTTTGGG GTGAGAGTGG TGAGACACAG CTGATAAGAG TAGTTGCAGT
208701 GGACCCCTCA GTGCTTTTCT CTCCAACAAT CTTCTCCCTC CACTACCCTA
208751 CATTAATCCC TGTTTCCCTA GCTATCATCA GAGCTGAGGT GCCCTGACCA
208801 TATGGTGCAC AGAAACCCTG CAAAAAATAT GAAAACCATC CTAAACAGCG
208851 TTGGCAAACA GAAAAATACA AGTCCCATCC AACTGTTTTG TGATCAGAAA
208901 TTTATTTTAA TTTTCTGAAT ATTTCAATCA CCTAGACAGG GAGAGTAAAT
208951 ACCATTTCAT GGTGTCCAGC CTGGGAGGAA AGGGTTGTGA CACATGGGGG
209001 CCATTGTTGG GGGTGCATTG TTCCACATA ACCTGGTAAT CTGAAGGCAC
209051 AGGGTCTATG GTCATCCCTG GGAACACACC AGTCATAATA AGACAGAGCT
209101 ACCTTGACAG ATCCAGGTGT TGTGCCAAAC CCTTTACATG CCTTATCCCA
209151 TTCATACTCA CAGCACTCAA TGCAATTAAC ATCTCTCACC ATTTACAAAT
209201 GAGAAGACTA TGAAACAGAC AGATTAACATA ATTTGACCTA AGTTACCCCA
209251 TCCAATGACA GAGCTGGGGT TTAAACCAGC AAATATTCGT TGTACCAACT
209301 ATTAGGAATT TGGAGTAAGT ATAGAACCTA ATGTAGAAGT TGGTAAAGGA
209351 GAAGAAAAGG AGATTCTTGG GACCTAAGTG ACAGCTCCAA AGTGTGTGAA
209401 AATGGACTAT GAGCTGATGA TTTAAATCA TGTTAAATC ACAGGGCTAC
209451 ATTTTTCACT TACTCTGTGG GATTTAAATA AAAGTAAAGC TAAAACTAGA
209501 GTTAAAAATA GAAATCTGCA ATAAACAACGT GTGTATCACA ATGACTATCT
209551 TTTGGACTGA AAAATTCTTG TGTTTTTGTG GCAATAAAC TCCCTTAAAT
209601 TGCAGGACTT TCTTCTCTAG GCTATTGTAT GTATAGAGTG GAAAGAGATT
209651 AAGTAGTTAA TAAAGAGCAA GTGGAAGGAT TGATTAGAGG TAGCTTTTCT
209701 TTCCTGTGCT TGGAAATCTA GAAATGGATT GTTGACAGAG GAGTAGAGGC
209751 CTCACCAGTT CCTGGAATAT CCATTGCCCT GTTTTGGGTA GGTGTTACGT
209801 TGCCATTCTA TCAGCCCTGC TTTTTTTTCG TCTCTTTATC CTTTACATTT
209851 CTAAACCGTA ATTCTAAATG TCTTAAGAGT TCTGTCAATTG GATACCTATG
209901 AATGTCTTTG AAACCCATAA GCAATCCCAC AGGCATTGAC TTGCCGAGAA
209951 CCTGGGCATT AATAAGAGAC AGCTGCAGTT AGAAGGTTT AATAATGCAG
210001 AGTAAACAAG CATTAGCAG TGAAATGTGG ACACCTTGAC AGTCACGTTT
210051 CAGCAATTCG GAATTCAGTG AAAGAGGCTT TTAGTCTTAT GGGAGCTGTG
210101 GGGGCTTGTT GGCAGTTTGA GTTTTGCAGA TGTGGCTCTG TGTTCCATATC
210151 ACCGCACACA CTTTAAGGCA GAAGGCCACC ATCAGTAGTG AGATAGGAGT
210201 TACGATATTA GCTTCTGAT TTCAGGGAAG CCCTCACAAA GGTGCCATCA
210251 GCTCTGTCTT ATGGCTTTGT GCTAAACGGC ATCTTCTGCC TTCCTATGAA
210301 TTATGAATGC ATATAAGCAA GGGCTTGGCT TCTAATGAGT TCAAGCTGAG
210351 ATGTGAAAGG TACATCTGAG TGTGAAGAAG ATGGATAAGG TCACCTTGGT
210401 GTTTTGTTT CTGTAACCTA GTGACATTTT CCAGGGCTGT TCTGGACACC
210451 ATTTGTGGGA GAGTAGATGA TAGTTTAAAA ATGCAACTTG GAGAAAAAAG
210501 TAGGTGGGGC TGGGTACATT GGCTCATPCC TGTAATCCTA GCACTTTGGG
210551 AGGCTGAGGT GGGAGGATTG CTTGAGCTCA GGAGTTTGAG AGCAGCCTGG
210601 GCAACATAGT GAGACCTAAT CTCTACAAAA AAATTTTAAA ATAGCTGAGC
210651 ATGGTGGCAT GGTGGCACTA AGCTACTTGG GTGGCTGAGG CAGGAACATC
210701 ACTTGAGCCC AAGAGGTTGA GGCTGCAGTG AGCGATGATT AAGCCACTGT
210751 ACTCCAGCCT GGCAACAGA TGAGACCCTG TCTCAAGAAA ACACTTTTAG
210801 AAATGCAACA TAGATGAGTT ACTTTTTGGG TCATTCAATT ATGCATCACA
210851 TATTTGAATG GTCTAAGCAC TGGGTATATG GTAGTGAACA CAATAGACAT
210901 AGTTCCACCT TCATGGGATC TCACTCAGCC TTACATATTT ACATAGTATT
210951 TATTGATTGA CATCTCCTAA ATGTGTGCCT TCTATTCTTC AGTTCTATTT
211001 TCGCAGAACT CTAGACTTAC ATATCCAGTC TGCCTGGGAG TGGGGTTAGG

```

FIGURE 3, page 67 of 141

```

211051 AGTCTCTAAT AGACATCCTG AAATAAGCAT GTACGAAAGA ACTCTAGACT
211101 CACATATCCA GTCTGCCTGG GAGTAGGGTT AGGAGTCTCT AATAGACATC
211151 CTGAAATAAG CATGTACTAA AGTTAAGCCC CTCATATACT CTACCCTCAG
211201 TCCAAATTAG CTCCTCTGA GCCAACCTCG ACTGACATCC TTTCACTCAC
211251 ATTCATATCC AATCCATAAG CAAAACCTAT TGGCTTGACC TTTAAAGTAT
211301 ACTTGGAATT TGACCACTAC TTACTACCTG CATTCCTACT GCGAAAGCCA
211351 TCATCACCTT GTCGTAGCTT CTTACTGGTC TCCTACTAAC CCTCCCGTCT
211401 CATTCAAAGC AAAGAAAGGC TTTTCAGTAC TTCATCATCA TCACCTCACT
211451 AAGCCCCTCT CTTCCATCAA CATGAGAATT GTCCTCACTC ACTCCACCCT
211501 TCCAGTTTCT GGAACACACC AAGCATGTCC CTGGCTTTGG GAGCCTTGAA
211551 TGCTCTTCCC ACCAGATACA CAAATGATTG GCTCCCTCCC TGTCTTCAAG
211601 TCTCTGTTTA TATGTCATCT TATCAGGGAG GACTCTGACC ACCTTATATG
211651 AAATAGCTTT CACTGGACTG AGAATCCCCT CTTTCTCTCT CTACTTTATT
211701 TTCTTCCATA GTCTTTTATT CCGTCTGAGT GGCCACTATT GCTTATTCTT
211751 TTATGGCCTG TCTCCCTCTG CTAGAATGAA AGCCAGTAGA GCAGATATTC
211801 TATTTTTTTT CACTGCTATA TTCCCAGCAC CTTGAACAGT GTTTATCACA
211851 GAACAAATAC TTAGTAGATA TTGTGGAATA CGTGAATGAA TGGATGCAGT
211901 GTACAGTCTA GTGGTACAGG TAGCCAATTA GCCAGGACAC AAACAAAGAA
211951 GTAAGAGCAA CTAGAAAACA AAGAAGCTGA AGTGATAGAG GAATGGGCAT
212001 TTGGGGTTTA GGAAGACCT ACTAATAAGG GAAGTCAAGG AGAATTTCTA
212051 GAGATTGACT TTTCAGCCAT GACCTGGAGG ATGGAAGGA GCCAGCCCTT
212101 GATGGGACAA AAGGGAAGCT GGAGAAGAGT GCTTCACAGA GAGGGAACAG
212151 AGAGTGAGGG AAAGCTCCAG GTCATGAAAA CCTGGGCGCG TTCCAGAAAC
212201 TGCATAGTGA GCAAAAAGAT CATAGTGAGC AAAAAGATCT TGGGGATGAT
212251 AGAGATATTC TTTACCTTGC TTTAGGTGGC ATATACACAG GTGTATACAT
212301 TTTTGAAAAC TCATAGAATT GTACCCTTAA GATCTTGCAT TTCACGATGT
212351 GCAAATTTTA TCTCAATAAA AATAATGCAT CATTAATAAT TACATCAAAA
212401 AAAGAAAAAC TACAAAAAAA CTACAACAGA GTTGCAATAT TCATGTAGAT
212451 AGATGAGCTC TATAGTCTG CAGCCTGCAT TGAGGCCACT TCCTGGCTGC
212501 TTGTGGACAG TGCTGGCCA CAGCTTCAAG AAGGTCTGGA TACACTCAAA
212551 TGAAGCCTCT CAGGAAAAAA AAAACATGGG TCCAGAGTGA CTCTGGGTGA
212601 GGAGGGAAGA GGAAGAGGGT TTTGCATGAT TTGGTGGGAT TTACTTCTCT
212651 ATGGGATGGC TCTGAGAGAA GAGGTGACCA AGAGGTGAAA GAAATCAGCC
212701 CGTTTATACC CTAACATCTG TTGACATAAG GTTGACTGAG GACGTGCCTG
212751 GGGTCTGAGC AAGATGAAGC TCAGCTGAGC ACTTCTCCTA GCTGGGGCTG
212801 TGATAGAAGG TTATGCGTAC TCTACTCTAT ATATACCTTT ATAGGTCTAT
212851 GCCTGCTCAG GATTGTTTGG CAGATGGAGG ACATGGTGTC AAGCCTGGCA
212901 GCACAGCATG AAAGCAAAGC ATGCATGCAT CCATTCTCAC TCAGAGCAGC
212951 TTTTCCAGCC TGGAAACATA AAACACTTCT GTAGCTCTGA ACCCATCTAT
213001 GTGTGTGTG ATATGTGCCA AGCCTTCTCT AGATATGCCT TCGGGAGTCA
213051 GTATAGCCTA CCAGCCAGGA GAGTGCTGAG GGTGCTAGAT GTAGACAGAT
213101 GGCTGAGTTT TCACACCTTC AAGGTGAAGG AGCAGTGAGC AAAAGAATAA
213151 CCTTTTGGGA GACTCTCAAG AACATCTAAA GATAGATATG CAATCTCTAA
213201 GGGACTGCTG GTGCTCAAAC TGAGCTCTCA TCCCAAAC TA AGTTCTTGTG
213251 GCAGCTAGGT AGCTTTTATT CATTCAATCA TTCATTCAAT CATTACACA
213301 GTCACAATTC ATTTGTACC AAACAATATA CATAATATTA TATATAGTTA
213351 TCATTTTACA GATATCATTC CCTTAGTTAT CCATTCAAGT TCAATGAGAA
213401 CTGTGTAAAT GGTTTTCACT TACCTAACTT TCAACAAAA CCCTGTCATT
213451 GGTTTTCCAT CTCCAACCTT TTAAGTTTCA AACTTGGTCA ATATTTTCTT
213501 TAACCAAATC ATTTATCTAT TGTTTTTAGT CAATGTAATT TTTTTTCCC
213551 TTTAACTCAT TTAGCGAGAG CAAGTTCCT GTGGATAGTG GAGGAGGGA
213601 GAATATGGCA TCTTATGTCT TTAAGCCTTG CCTTCCTCTG GCTCCTTCT
213651 CAGAATCTTT ATCCACAGAA AGGCTAACTG TTCTTAGACT TGGGAAAAAC
213701 AAACCTCTTA GAAGTAGGCT TCTCCCATGA GTGGGTTTTT ATTGGTTTGT
213751 TTCCTAATAG GTGTGGCAAA ACCTCTTCC TACCTTGCTG CACCTTTTTT
213801 ACTGGAGTTG GCTGCAGCTT GGACAGTACG CCACAACCAG AGTCTCTTGG
213851 ATAAGTGACT GTCAGCAACA GCTTGAGAAA CAACTGTCA GAAAAGGATT
213901 ATTTTTCTCC AAATGGGAGG CTAAGGCTTC ATCTCTCTTC CTTGTCTTTG
213951 TATACATTTG ACACATAATT GGTTTTGTG GTTGTGTGTG TTGTGTGTG
214001 TAGAAACAGG GTTTTATTTT TGAACACAGA AAAAGCAAAC AATATTTTAA
214051 AAATACAGTC ATCGATGTC ATCATATTTG GCTTGAATA CACAAGAATC
214101 CAGTGACTGA AATGCTGTT CTAAAAACAT AAACATTTTC TTATATCAGT
214151 TCCAACCCCT TTTAATTTAA TAAATATTTT CTGAATGAAA TACAACCTGGA

```

FIGURE 3, page 68 of 141

```

214201 TAATGAAGTG ACACAGTTTT TTTCTTGTGA ATTGAATCTT TCGTTATGAC
214251 TAGCTCTAAG TGAGGAGATC ATCTGGATTA TTTTGTCAAA CAACTGCCTG
214301 ATAATAAAT GAAGATCTAC ATGGTGTGAT TTTTACAATC CTGTGAAGAC
214351 CCCACTGTGAC TTTCTCCTTT GAGATTGCCT GCTTGCTGCT GCCTAAACTT
214401 TTCCTATTAG AAATTAAGTC CTCTGATATG AGGTCATATG CCTTATGAAA
214451 TACAAATATC CTGAGAGAGA TAACACATAA ACTTTATCAA CCATTTTTTG
214501 GTTTTAATGG ATCTGTCATA TCTCTTCTTG ACAGAGAGCA TATTTTAATA
214551 GATAGGAGAA TGAAAATAAA TATGAAGGCA TATATTAGCT CCCTTGTGAA
214601 GAAAATATAC TTGTTGGGAA GTGCAGGAGT GTAGAGAAAA GAGTAAGAGC
214651 AGAGAAAGAG GAGGGTTTCT AAATTGTCAT ATTCCTTGAC CCAGTAATTC
214701 TATTTCTGAT GGGCCAACCT AAAGAAATAA CAATAAACAT GAAACAAAGA
214751 TGTATGTGTA AAGATAGTCA TTGCAGTATT CTTTAAAAACA AAATAAAATG
214801 AAAGCAATCT AGATGTCCAA TGATAAGGGT ATGGATAAAT ACATATGATA
214851 TGCCTTTAGG GAGCAATGGT CCAGCCATTA AAATTATGCT TCTGAAGAAT
214901 TTTTAATAGC GTCAGAAAAA AGTCTGAACA ATATTGTACA TTTTCTGTTT
214951 GGAAACAGAA AAACCAACAA ATGTTTTTAA AATGCAGTCT ATTGATGTCA
215001 TCATATTGGA CTGGAATAC CTGAGAATGC AGTGACTGAA ATGTGTGTTT
215051 TAAAAACAGA AACATTTTTT ATATCAGTAC CAACTCCCTT TAATTTAATA
215101 AATTTAATAT TCCAAACAAT ATTGTACAAC AGTACATTGT ACTGTTTTTT
215151 TGTGTATTTT ATGTATAGAC ACACATACCG TACATATATA GTATAATCTC
215201 AAATATCTAA AAGATAGGCA TGCATATAGC ATACATATAT AGTATGATCT
215251 GAAATATCTA AGAGATAGAT GTATATAGAA AAGACTGACT ATATATGTTT
215301 ATGTGTGTGT GTTTGTATTA ATAGCAGTGG GATTTGGGGT ATTTATTTTC
215351 TTTGATAAAT TTCTATATTT TCCAGATTAA AAATAAATGG GAATTGTTAG
215401 AGAAAACATT ATTTTCAATA TTTGTATTTT GACATTGTCT AAAAAGGGAG
215451 ATTCCTTCAG ATATGATAGT TTTTTCCTGT GGCTGCTAGG CAGGCATTGA
215501 TAGTTATCAT GACTTTCATG GATCTGACTG GACCTTTTGA GAACAGCTAC
215551 CATTCCTCCA TAAAAGCAAT GTCTAATTCA TTAGTGAAT GACTGCATAG
215601 GTTCTCTGAAA AAAAATGTGG GCATTTGACT AAACCTGAAT CTGTGGGACA
215651 GTTTTCTAGA ATGAATCTT ACAAGATATT CCTCATGTCT CTAAGGCATG
215701 TTATTATAAT GGAGGGGTTT GTGGCTATGG AGGAAGGAGA CTTGAAGAAC
215751 ATTTAAGTTC ATCAACAAAG AAGCCGTTGT TATTTTCACA GCATTTGAAA
215801 ATCTGGCTTC CCAGCACTTG GCTGAGATGA CTGAAGGCTG GTGACACTGT
215851 AATTTGGCAT CTAGCAAGAT GCAGTTACTC TCTCAGGCCA CTTAGCTCCA
215901 GTAAAGTTCA ATTTAAATTA TGAAACAGGG AAGAAATGCA AAAGTTCCAA
215951 TCAGCAGCAT AATTTCTCAAT CACACTGGCC ATAATATGCT CCTGAAAGAT
216001 GTTTTCTTTG ACTGAATCTT TGCTACGCCC GGCTGATTTT TGTATTTTAA
216051 GTCAAGTCGG GGTTTGACCA TGTTGGCCAG TCTGGTCTTG AACTTCTGAC
216101 CTCAGGTGAT CTGCCCACCT TGGACTCCCA AAATGCTGGG ATTACAGGCG
216151 TGAGCCACTG TGCCCAGCCA TAAATTCCTA ATTTTCCTTA GTATAACCAC
216201 AAACCTGAAA ATAATTAATA CTTTTCCCAG ATCATTAGGA TGCTGTTTTG
216251 GATTATTTTA AGCCTGCTTG GTGGAGGACA AATTTATTTT GTATTGAAGA
216301 CAATATTTTT AATCAAATAC AGTTCTGTGA TTTCCCCAAC CGTTATGGGG
216351 GAAGTCTGAC TCTTAATGAG GGTTAAGGTA AATGACGAGT GGTATTCTTA
216401 GATTTAGCAC TCCTTGAAGA CCATACATTT CCAAAGAAGA GCTAGTTGTT
216451 CTCCAAGGGA AAAAATGCAT TAGATTTCTG CTGTATTGAC TAAATTGTAA
216501 ATTGAATAAA ATATTTCTTT TATTCTAATA GCATTTACTA TGTTTATAGA
216551 TTTAATATGT ATTTATTATA GATAATTTGG AAAAGACATA AGCACACGAA
216601 GGAGACAATA AAGATCACTC ATAATTTAAT CTTTATAGTCA AAACCACTGC
216651 TAACATTTTT TTGTATGTTT TTGCCATGAC AGATAGAGCA ATAAATCTAG
216701 AGATTGTTAT GGAGAGAGTG ATGTAGATAT ACATAAAGTT ATTTTCTTTT
216751 TTAAAAATAG GATTATACTG AAATAATTTT GGAACCAGAT TTTTTTTTCG
216801 CCTAAATGTA GTAAGAACAT TTTTCCATGT TATTAAGTAT CCTTCTACCA
216851 TACAGGGAAA ATAAACATTT CTCCTTATT TTGACAGGAC AGTGATATCG
216901 AAGCGTTGGC CAGGTGTTTG GAAAATGTCC TGGGTTGCAC TTCTCTAGGT
216951 GAGTAAGTTC CTTTAGGCTT CAAAATACAT TGACAGCTAC TGATTATCTT
217001 GGAATAACTT GGAAGAAATC TTACAGGTGT TTAAGTCTGA TATCTTAGTA
217051 TAACAGATGA AGAACTGAG GCCAATAGAA GTTGAATGTC TGACCCAAAA
217101 GCCAGGAAAC TCAAAGAAAA ATTGCTTATT ATTATTGTAA GTAACCTTTA
217151 GTCTCCAAGG ATGAAATAAT TGAAATTCAG TGGTCCCTTG TGATCAAATG
217201 GCAGCCTAGC AGTGCATAAT AACAAGTTTG TGCAGTTTCT GGAAAAAGGA
217251 ACCTCCCTAC CTAACCTGTC TTTTAGAAGC AGAGAGCACA GTACATTCAG
217301 TTAAGCTGGG AGGACCATCA CTCCGAAGGT CAGTCAGTTA TTTGAAGAGA

```

FIGURE 3, page 69 of 141

217351	TTTGGTCTGA	AAAAACAAAC	TAAAACTTGT	TTAGCATTGT	CAGTCTCAAT
217401	AAATAGGATT	GCTATGCTTC	AGGGATAAAG	CCCTATTTCT	TAGTTTCTTC
217451	TATTTTTTTT	TTAATCTGAG	AAGCCTAACT	GAGATACACT	CTAGCACTAG
217501	ATGATAAACA	GTGACACAGA	GTATTCTTAC	TAGATGAAAA	GGGCTGAGAT
217551	ATTTTCTTCT	TCTAAATTTG	ATTACAAGTT	TTTATTTAAA	AAATTTAAAC
217601	TCTAAACCAA	AAGCAATCTC	TTCAAAGGGA	ATGGCAGGGT	AAAAACAACAC
217651	AATTAAGTTT	TCAGGTGGGC	AAACATTAC	TCTTTTATTA	GGAGCTTTAT
217701	GCACAATTTA	TAGCCTTTTT	CTAGCTTATT	CCACATCTCC	ATATGGGAAA
217751	CCTCAGTCAT	AACATAAGTC	TTTGATTTTC	TCACCTGACC	ATCACCCTGT
217801	GATCTGTTTA	ATTGTATATC	AAATACACTT	ATTTGATGCA	TTTAAACATT
217851	AACAAGTACA	TTTAACATCG	AAGCATGACT	TAAAGACAGG	AAGGCTTTTT
217901	CCTCTCTGGA	CCTTAGATTA	GTGACTAAT	TTTCAATCTA	GGCTCCTTAG
217951	AGACCTCCAG	GATGAGGGGT	TGGTGGTACT	AAGCAGCATG	AGAACAGAAG
218001	CTGTGTCTGT	ACTGCTCATC	TCTATTTTTC	CAGAGTCTAA	CACTGTGTCT
218051	GGTGACGACG	AGGCTCTTTA	AAAATATTTT	AAAATATTTT	TGGTCCGAAGG
218101	TGGTGGCTCA	CACCTGTAAT	CCCAACGTTT	TGGGAGGCTG	AGGTGGGAGG
218151	ATCATCTGAG	GTCCAGGATT	TGAGACCAGT	CTGGGCAACA	TAGCAAGACC
218201	CCGTCTCTAA	CAAAATTTTT	TAAAATTCAG	CCAGGCATGA	TAGCCTGTGC
218251	CTGGAGTCCT	AACTCCATGG	GATGCTGAAA	CTAGGAGATT	CCTTGAGCCC
218301	AAGAGATTTA	GGCTGCGGTG	AGTGTGTATT	ATACCACTGT	ACTTCAGCCT
218351	GGGTGCTAGA	GTGAGACCTT	ATCTCAAAAA	TATATATTAT	TGTTATAATT
218401	TCTATAAAGT	AAAGGGGTAC	AGTGCAAGTT	TCTTACACAT	ATATATTGCA
218451	CAGTGGTAAA	GTCTGGGCTT	TTTGTGTAAAT	CTTACCTGA	ATATGGTACA
218501	TTATACCCAT	TAAGTAATTT	TTTTATCACT	CACCTCTCTC	CCAACCTCCC
218551	ACTCTTCTGA	GTCTCCAACG	TCCGTTACTC	CACACTGGAT	ATCCATATGT
218601	ACACATTATT	TAGCTCCAC	TTATAAGTGA	GAACATTGGT	ATTTGACATT
218651	CTGTTTCTGA	GTTGTTTTC	TTAAGATAAT	GGCCTCCAGT	TCTTTCTATG
218701	TTGTGCAAAA	ATTCATGATT	TTATCTTTT	TTTTGTGGTG	AATAGTATTC
218751	CATTGTGTGT	TGTGTGTGT	GTGTGTGTGT	ACTGTTATCC	AATCGTCCTT
218801	TGACGGACAC	TTAGGTTGGT	TCCATATCTT	TGCTGTTGTG	AATAGTGCTG
218851	CAATAAACAT	AAAAGTGCAG	GTATCTTTTT	GATATAATGA	TATAATGATC
218901	TTTTCCCTTG	GGTATATACC	CAGTAGTGGG	ATTGCTAGAT	TGAATGGTAG
218951	TTCTTTGAGC	AAATCTCCAA	CTATTTTTC	TACAGGTTGT	ACAATTTTAT
219001	ATTCTTACCA	AAATACGTGA	TAAATGTTCC	TTTTTCTCTG	TATCTCATC
219051	AACATCTGTT	ATTTTTTGTG	TTTTTAGTAA	TAGCCATTCT	GACTGGTGTA
219101	AGATACCTTC	TTGTGGTTTT	AATTTGCATT	TATCTGATGA	TTAGTGATGT
219151	TGAACATTTT	TTCATATGTC	TTTTGCCCAT	TTATGTCTTC	TTCTTTTGAA
219201	AAATGTCTGT	TCATGCATGT	CTTTTGCCCC	CTTTTATGTT	GAGTTAGTTG
219251	GGGTTTTTTT	GTTTTTTGTT	TTTTTGTGTT	TTTGTGTTCT	TTTGGTGATG
219301	GTTGTTTGAG	TCCCTCATAA	ATTCGTGATA	TTAGTCCCTG	CCAGATTGAT
219351	AGTTTGCAAA	TATTTTCTCC	TGTTCTGCAG	ATTGTTTGTG	TAAGCTGTTG
219401	ATTTGTTTCT	TTTGCTACAC	AGAAACATTT	TAGTTTAATT	AAGTCCCATT
219451	TGTCTATTTT	GGTTTTGTGT	CTTATGCTCT	TGTAGTCTTA	GTATGAATT
219501	CTTTGCATAG	ACCAATGTCT	AGAAGAGTTT	TCCCTAGGTT	TTCTTTAAAC
219551	AAAAAAATTT	TTTTTATTC	AATAGGTTTT	TGGGGAACAG	TTGGTGTTTG
219601	GCCACATGAA	TAAGTTCTTT	AATGGCAATT	TATGAGATTT	TGGTGCACCC
219651	ATCACCCCTAG	CAGTGAACAC	TGTACCCAGC	GTGTAGCCTT	TTATCCCTCA
219701	CCTCCCTCAC	CCTTTCCCA	CAAGTCCCTA	AAGTCCAAAT	GTATCATTCT
219751	TATGCCTTTG	TGTCCTCAT	GCTTAGCTCT	CACATGAGTG	AGAATATAGG
219801	ATGTTTGGTT	TTCCATTCTT	GAACTACTTC	ACTTACAATA	ACAGTCTCCA
219851	TTTCCATCCA	GGTTGCTGCA	AATGCCATTA	TTTCATTCTT	TTTTATGGCT
219901	GAATAGTATT	CCGTGGTGTG	TGTACCACAT	GTGTATGTGT	ATCACATTTT
219951	CTTTATCCAC	TCATTGATCG	ATGGACATTT	GGGCTGGTTC	CATATTTTTG
220001	CAATTGCAAA	TTGTGCTGCT	ATAAACATGC	ATGTGCATCT	TTTTCATATA
220051	ATTACTTCTT	TTCCCTCTAG	TAGATACTTA	GTAATGGGAT	TGCTGGCTCA
220101	AATGGAAGAT	CTACTTTTAG	TCCTTTAAAT	AAATTTTCAT	CTGTTTTC
220151	TAGTGGTTGT	ACTAATTTAC	ATTCACATCA	ACAGAGTAAA	AGTGTTCCT
220201	TTTCACTGCA	TCCATGTCAA	TATCTATTAT	TTTCTGATTT	TTAAAATTAT
220251	GGCCATTTTT	GCAGGAGTGA	GGTGGTATCA	CATTATGGTT	TTTATTTGCA
220301	TTTCCCTGAT	ACTTAGTGAT	GTTGAGCATT	TTTTCATATG	CTTGTGGGCC
220351	ATTTGTATAT	CTTCTTTTGA	GAATTGTCTA	CTTATGTCTT	TAGCCCCATT
220401	TTTGTAGGGA	TTTTTTTTTG	TTTTCTTCTT	GCTGACTTGT	TTGATTTCTT
220451	TGTAGATTCT	GAATATTAGT	GCTTTGTTGG	ATGTATAGAT	TGTAAGGTT

```

220501 TTCTTCCACT CTGTGGGTTG TCTGTTAATT CTGCTGTTTA TTTCTTTTGC
220551 TGTGCAGAAG CTTTTTAGTT TAATTAAGTC CCATCTATTT ATCTTTGTTF
220601 TTGATGCATT TGCTTTTCAGG TTCTTGGTAA TGAAGTATTT GGCTAAGCCA
220651 GTGTCTACAC GGGTTTTTTC TGATGTTATC TTCTAGAATC TTTATGGTTF
220701 CGGTCTTACA TTTAAGTCTT TGATCCATCT TCAGTTGATT TTTGTATAAG
220751 GTGAGAGATG AGGATCCAGT TTCATTCTTC TACATGTGAC TTGCCAATTA
220801 TCCCAGCACG ATTTGTTGAA TAGGGTGTCC ATTTCCCTACT TTATGTTTTT
220851 GTTTGCTTTG TTGAATATCA GTTAGCTATA AGTATATGGC TTTATTTCTG
220901 GATTCTCTAT TCTGACCCAT TGGTTTTTGT GCCTGTTTTT ATACCAGTAC
220951 CATGTTGTTT TGATGACTAT GGCCTTATAA TATAGTATAG TTTGAAGTCA
221001 GGTAATGTGA TGCTCCAGA TTTATTCTTT TTTCTTAGTC TTGCTTTGGG
221051 TATGCAGGCT CTTTTTTGGT TTCATATGAA TTTTAGAGTT TCTTTTTATA
221101 GTTCTGTGAA GAATGATGGT GGTATTTGAT GGAATTGCA TTGAAGTCAT
221151 TTTCACAATG TTGATTCTCT CCATCCATGA GCGTGGGATG TGTTTCCATT
221201 TGTTTGCATC ATCTATGATT TCTTTCATTA GTGTTTGTGA GTTTTCCTTG
221251 TAGAAATTTT TCACTTATTT GGTAAATGT ATTCCTAGGG TTTTTTTTTT
221301 TTGTAGCTAT TGTAATGGA ATTGCCTTCT TGATTTGGTT CTTAATGTGA
221351 TTGTTATTGG TGTACAGAAA TGCCATAGAT TTTGGTATGT TTATTTTGTA
221401 TCCTGAAATT TACTTAATT TGTTTATCTA ATCTAACAGT TTTTGGAGAA
221451 GTCTAGTGTT TTCTAGGTAT AAGATCATAT GATCAGCAAA CTGAGATAAT
221501 TTGACTTTCT TTTTTCCAAT TTGGGTGCTA TTTATTTTTT TCTTGCTTGG
221551 TTGCTCTGGG TAGGACTCCT AGTACTGTGT GGAACAGGAG TAATGAAAGT
221601 GGGCATCTTT GGGTTTACC AGTTTAGGA GAATTGCTTT CAACTTTTCC
221651 CCATTACAGTA TGATGTTGGC TGATAGTGTG TCATATATGG CCTTTATTAT
221701 TTTGAGGTAG GTTTCTTTTA TGCTCATTT ATAGAAGGTT TTATCATGAT
221751 AGAATGCTGA CTTTTTTCAA ATGCTTTTTT TGCATCTATA TAGATGATCA
221801 TATGGTTCTT AAAAAATTTA TGTGGGTACA TAGTAGGTGT TTGTGTTTAT
221851 GGAGTACATG AGATTTTTTA AATAGGCATA CAATACATAA TAATCATATC
221901 ATGGAAGCTG AGGTTTGGGT CTGGAATAAT GCTTGGGGCA CTTCTGGGAG
221951 CCTTCTTTTC TTACAGCCTG CCAGCCTTTC TCCAAGTTAG CACCAGGCT
222001 GGTGAGGGAC AAGGTGCTCT TCCATGGCCT GGATTGCATG GTCCCCCGT
222051 GGAAAGCTGG ATCACAGAGA AACAGTCTCT CTCACTCTCC CATATTAGGG
222101 CTTTACTCAC AGTTCTCAGT CAGTTGTTGG CATGCAGGCT GTCTACCCAT
222151 CCTCTCTTCA CTGGGATCTT TCCTTTTCCA GTGAATTCCT CTGTTCTTTC
222201 TTGAATAAAA GATTATAGTG TGAATCTCTG TGCATATTT TGCTTTTTC
222251 ATGTGAAATA TTTAAAAATA TTTTATAGGAG AAATTAGATG CAGACCCTGT
222301 TCTTTTACCA GTTTCAACCA AAATTATCTT CACTCTTATC TGTTTATATA
222351 ATTGAATTTT TATAAAGAT TGTGTCTGGA AAAAGATAGA TTCCACTGCT
222401 AAAAATTGAA ATAGCACTGA TTGAATAGTT AATATCCAAA TTCCTTTCTA
222451 GGCTGGGTGT TTTTTTTTTT CTAAAGAAA TGAGCATTAG AATCATGGAG
222501 TAAAAATACA CATTTATCTC TGCTTGAAGT CCCACTAACA TGACAAAAAA
222551 GGAAAAAAGC TAATATAAAC CTACAGAAAA AAAAGAGAAC ATAAGAGGAG
222601 ATGGAAGCAG ATGAGAGCTT TAGTGAAGTT GAGAAAGATA TAAAGCAGAT
222651 AGATGAGTGA TAACTGATTT AGAAAACAGA GAAAGCTGAA AGCTAAGTGC
222701 CTAAGATGTA TATAGGAAAG AAGGGAAGGT AAGGTGTAGG CTAGGAGAAAG
222751 CAAGGCAACT GAACCTACAG AATCTCATAA ATGCTCAAGA TTTGGAGGCC
222801 TCAACTACCG CTGAAGGCAT GGTATAGGTG AAGATTAAAA TGGGAAGATT
222851 GGTGACAGT GTGCGTAAGG AGAAATAGAC CCCAGGTGCC TTTCTCTCCA
222901 CTGGCAGAGC CACAATATTC CTCTCCACAG TCAAGACAGA AGAAAACAGA
222951 CTCGATTTGG GGGAACATTG AATCAGGAAG GTTTTAGGGA CACCAAAGGA
223001 CAGGGTGTAT TGATGTGATG AAAACAAAGA GATGAGTTGA AAGTCTTCAT
223051 ATTAAGTTAT GAAACCCCCA GATACCATTCT ACTTTGGCT TCTGAAACAC
223101 TGGAAGAACA GCATGGACTC CTTCAGGTTT AGAAAAGCAT GGACTCTTTA
223151 GAAGATATCT CTCTGACAGC ATTTACCAGC CTGAGAATCC TAAGGATGTT
223201 AACATTTTCT CAACAAAATG GTGGGAATGA GCGCTACCAG TTGACAATCT
223251 CTGAATCTGC AGAAAGAGCT TAAACTGACT TTTAATTTTT CACTTTAAA
223301 TGTGAACATG TAGCAATGCA GTAGCCAGTA TCTGAGGAAA TCTAACCAAA
223351 AAGAGAAATC AAGACAAAAA TATACAAAGA ACTCAGGAAA CAGACAATGT
223401 AGACAAGAAA ATAAAAATTC AAAAAGTGTG TATCCACAAA AGTTTTTTAA
223451 AATAAAAAAT TAAAGAAACA ATATTAAAA TCTAAAAGAT AGCAGAGAAA
223501 GTATTACCTC TGTGAAGCAA ATCATACAGA GAATAAGAAA GAGCTCTTAA
223551 AGTTATATTT TTAATGGCAG AAATAAAAA TCAGTAGAAG GTTTGGAAGA
223601 TAAAAGTGAG GAAATTTACC AGAATATAAT TAATAAATGG TAAGAAAAACA

```

FIGURE 3, page 71 of 141

```

223651 AAGTGATTCA TCTACGTGAT TCAGCACCTA ACAAATAGAA ATTCCAGGAA
223701 AAAAGAACAG AAAATGAAAA AAATTATCAA ATAAATAAGA AAAATATCTA
223751 GAGAGAATCA AACAGACCAC TTATAAAGTA TCAGAGAAAA GAGTGGTGTC
223801 TTATTTTTC AACAATACTA AAAGCTAGAA GATAATAAAG TTTGAACCTA
223851 CAAATATTTA TCTATCCAAA CTATCAATCA AGTGTGAGAA AGGAAGAAAG
223901 ACATTTGCAG GCATCCAATA TCAAAAATGA GGTCTGAAAA ATATCTACCT
223951 CCCATGACTT TACTTAGGAA GTTCCTAGAG GATATGCGTC ATCAAACCTA
224001 AGAGTCAATC AAGAAAGAGG AAGACATGAA CTTCAGGTGA TAGGAAATCC
224051 AATATAGGAG AGAGGTAAAG GGGATTCCCA GAATGAGAGT AAAGAAAGGT
224101 CACTGAACGA TAGGTGGGCA ACAGGCCTGG GAAATAATCC ATTCAGACTA
224151 GAATGAGTCA GAAATTCCA AGGGGTAAAT AAATATCTCC TAGAGAGGAA
224201 TGGAATAAAT GGATAACCCA TTTGGATTTT ATCATAATGA GAGGAGTTTG
224251 CAGTTCCTTT GGTGAGTTTA GGGATGAATT AGAAGTTATT AGAAAACTAA
224301 ACAAAGTGAA AAATCCAGGG CAATTATGAA CTCCTGGAAA AACAAAAAGT
224351 CATTTTTTAA AAAGAAAATG TAATCTGCAC ACACTGAGTG CTTAGCTGTA
224401 TACAATATTT GCATAGTCAT AATAATTTTT TTTAAATGTG ATGTAACAT
224451 ATTGGAAAGA TGGAGGGAAG AAAAATATTT GTAAGTGTAT GTGTGCATCT
224501 GTGTGTGTGT GTATAACAGA GAGAGGAAAG AAAGAACAAA ATTAACATTC
224551 CCTATTTATA GTAGGAAGTC CAAAACAGAT TGTCTAAAAC AGAAAAGTTT
224601 AAAAAAATA GTTGTATAAA CATGTGCTAT AGAGAGATAA AGGTAAATAC
224651 AAAAAAATAA AAAAACAGT TAAAGAGTTG AATATGGTTG ACTTTGGAGA
224701 CTGGAACCTG AAGGTGAGGC AGGAAGCTTT CTTGTTTTTA ACATTAAGAG
224751 CTTTGACTTA AAAAAGTACT AGGTACATGA ATTCTTAGAT TAGAAGTCAA
224801 TTTTTTAAAA GAGGTAAGTG TTGGAAAGCA AAGAGCCCAA TTCTGCCCTC
224851 CATTACTTTA GTGTGCCTGC TATTAAGGCT GGATTAAGAC TTTTGGACAC
224901 TTTGATTTCT GAGAAGATTA TAGTAACTA AATTTGTAAA TTAAAAAGAA
224951 GCTAGATTAT AAAATAAAAA ATACATATAC CCTGAAGTTA TAATAGCTTC
225001 TTTTCAGATT ATCTGATTGC AAGGTTCTGA ATACGTTAAT TAAATGTATT
225051 TTTTCAGTTT GGATACCTTT ACTCTGCTTA TGTCTGGCA TCTGCTGGGA
225101 TGATTTATAG GACATTCAG AGTTCATTCC ATGTAAGTGC TAAAGTGCTT
225151 GCTGCCCAAA ACTGTGCAAC ACAGGAAGCC CCTTAACCTT TCTACTGCTT
225201 CTTATGACTA TGATGACCTC TTATTGTGTG TGACCTCTTA TGTACCAGA
225251 ACAGTAGAAT TTAATTAATG CTGCTGCTGA AATGGAAGGA GTTCTTTGAT
225301 TATGGCTACA GACATTGAGA TGATGGGAGC ACATGCTTTT GAAATACCTG
225351 TCTGGTGTGG AAACATCAG CAGGACCTTC ATTACACATG AGAACTTTAT
225401 TGCTTTTCAG ACTGCAAGAA CTTCCCTGTC ATTATATAGA AATCATGAAG
225451 ACAATCCCAT CACATAGTCT TATAAGGGTC TAACATTGCC CAGGTAGCTT
225501 GTGTCTGCTT TGTTCTCTAT ACATTTTGG GAGGCCCACT AACTGTAATA
225551 ATAGTTAGAG CTTATTAATC ATTGTGGTTG TTAATATATG TCAGAATGTT
225601 AACAGGATCC GGGGACAATT TAAGCTTAAG TATGTCAGAG TATAAGCTTT
225651 TTCACCTCAA AATGAAACCT CTGTGAATTG AACTAGGCTT TACTCATGCT
225701 CATTATCTGC CTAGGCACTT TGGTAATGCC CAGGTGCCTG CAGAGCATGT
225751 CAAGATATGT ATGTATCTTC TACAAACATC TTCAAGAGCT TCTCTATCT
225801 CTTAACCAGA GAAGAAAGAA AAACAGACAT ACACATGTCC TTTCTGGTAA
225851 TTTCAACCAA GAAATTTTAA ACTTCGAAAC CCTGAAAATG CTGTGTGTAG
225901 TGGCTTGACC CCATTCCTGA CCCCATTATA GTTTGAATTC TACTTGGAAC
225951 AGGGACAGTG ATATTTTCTT TTCTTACATC ACAGATGAGT GGACTTAATG
226001 AATGAGTTAG CATTTGTGTG GCTTCAGGAG ATCCTGAAGA TGACTTTTTG
226051 CATTTCAAGT TCAGTGTATT AGTCTCCTTT ATAGCATCAA GGTGAGATTA
226101 AAGCCTTGAG ATCAGTGATT TTCACACTTG GGCATGCATC TGAATTACCT
226151 AGAGGGCTTA AAATACAGGT TTGGTATGTG TCCAAGAATT TGTATTTCTG
226201 ACAACTTCCT ACATGATGCT GATGCTCTGG GTCCAGACTG CACTTTAAGA
226251 ACTATGGCTT TATAATCTTT AAGCCTTGAA AGGATTATCG TGCACACTCA
226301 CCCCATTATA TAATTCAAAC AGAACATAC TAAAGTGTA AATAAAAAAT
226351 TTATTTCCAA AAATTATAGA GAACTTAAAA GCTATAAGCT AAAATGAAAT
226401 GTTTTCTTCC TAGATTTTCT TCCTCTTCTT TTCTGTGATC CTGTCTGTG
226451 TGATGGGCTA TCTGGCACTG TGCATAAGAG TTAAGTGTGCT TCCTTAGAAG
226501 TGGTATTGTA TTTCTGCCTG ATCCTCAGCA TCCACATCAG GCATTTAGAG
226551 AGCTCATGAA GGTTCAGGCT ATTGCAATAA GAGTTGGATA TTGAGACTCA
226601 TTTAGAATAT GGTCTTGTG ATGAGGTGGG CTCCTGGACA GATCAGTGCA
226651 AGGTTTTGTG AAAGTACCAG GGAATACCTA CTAGGTGCTT TTCTCATACA
226701 TGGAAAACAA ATTTCTTAC ATGAAGGCC CTCATTTACA AAACGCTAAA
226751 TTCCCACCAA AATTTCCCAT GGGATACAAG AAGCAAGACC AGACATGAAC

```

FIGURE 3, page 72 of 141

226801 AGGATATTAA GTGATTCTAG GCAGAATTAG GAGAAAGAAA GAGGGAAGAA
 226851 ATGAAAAGGG AACAGAAAAA AAGTCCAGAA TGAGGGCATG GGAATAGCC
 226901 AATAATATAG CCAATAGCTA TTTTACTGAG GGCAGATACT TTGAAACATG
 226951 ACATTTCCTG AGTTGAAATT TCTATCCTTG ATTTCTTTT CTCTTCTTCC
 227001 TTCCCTACAA ATGTTTATAA AGTTTGCAAT ATAAGCCAAA TGTACAGAT
 227051 AGAGTGCGCA AGAAAACAAG TCCCTGTCTT AATGATTTCC CAGTATAGTC
 227101 AGGGAGGCAG ATAATTACAG AATACTGTGA TGAGTACACC ATACACTGTG
 227151 AATAAGGCAA ATGTGTGTTG GGTGTGTACT GGGGTATAAC CCCAGTGCAA
 227201 TGTACAATAT CCCTGCTACA AAGTATATTA ACTTCAATGA AACCATAATG
 227251 CATGTGTATT AAGTGAATTA ATGATTGGTG AGTTTCTCTT TTAGCTATGT
 227301 AAACCTGATT ACTGGAACCT CTTTCTAGTT AACACCAATA TACATAATGT
 227351 TCTTTGCTAT GAGTATGCTA ATAAGAGTAA TTAATAATAT TGTAAAGGG
 227401 ATTTATTTAT ATTACAAAGT CTTTTCCTTG CTACCTCCCC TTGCTACACA
 227451 TGGATCAAAT GGAGCTGTCT GGCAAGGTAG CAGACATGTA GCATGTTCTC
 227501 CGTAAGTTGT CACTAATCCT GAATCTGTTG CGTTCCTTGG AGTTTAAAG
 227551 AAGTTGTAGA AATTTAAATT TTTTATAAGA CATAAATCTC TATAAGACAT
 227601 AAACAGAAGG GATAATGGAA AACAGATATT GTGTATCCAC ATCAAAATGA
 227651 TCCAAGTGGC TTATAATCCA GAATATCCCT TCTCTCTTCC AATGAAAGTG
 227701 GTCGCAATGT GTCAGTAACC AAAGTAAAC AGTATGTTGA AATCTCTGTG
 227751 AGACTAGCAT GAGAAATTTT TTTCTGTCAA GGTGAAAAAC ACAATAGTGC
 227801 AAGATTAAGT GACTTTAAGT CATCACCACA CTTAATGGCT TAAGAGTTTG
 227851 AAGAGCTTAA GCAAGGGAAG TTTCTAAGGG ATTCAGAAGC CCTGATGATT
 227901 TCTCTGGTCT ATATCAGTGT TATTGTTTAG CAGAGATTA GGAATTATTA
 227951 CCAAAGTTCT ATGGAAGAAT TGAGGGGTAA CAATTTTCAA ACAGCAAAAC
 228001 TGATCAGACC TTATAACACA TTAAAAGAAT CTTAATGGGA AGTGAGGTTT
 228051 TGGAGCATCT GTGAAATTCT AATTACTTCT GAAACAACAT CCAGTTTGGA
 228101 TGTACAAAGC CTTTTTATAA ATATAGTTTA CCAAGGACAT GTATAATTCT
 228151 GCTGATAACT TTTCTCAGCT AGAAGTGCAG CTAATTTGGC TGGGCACAGT
 228201 GGCTCACATC TGTAATCCCA GCACTTTGGG AGGCCAAGGT GGGTGGATCA
 228251 CTTGAGGTCA GGAGTTCAAG ACCAGCCAGG CCAACATGGT GAAACCCCGT
 228301 CCTAGCTAAA AATACAAAAA TTAGCCAGGC ATTATGGCGG GTGCCGTGTA
 228351 TCCCAGCTTC TCAGAAGGCT GAGGCAGGAG AATCGCTTTA ACCCAAGAGG
 228401 TGGAGGTTGC AGCAAGCCAA GATCACACCA CTGCACTCCA GACTGGGTGA
 228451 GAAGAGCAAG ACTCCATCTA AGAAAGAAGA AGAGAGAGAG AGAGAGAGAG
 228501 AGAGAGAGCC AGCCAGCCAG CCAGCCAGAA AGAAGGAAGA AAGAAAGAAA
 228551 GAAAGAAAGA AAGAAAGAAA GAAAGAGAGA AAGAACAGCT AATTTCCCAA
 228601 ACATTTAAGA ATGTTAAAGT TTGTAGATTA CCTTGGCTCA TAATGTAGTT
 228651 ACTAAGATAT GGAGACAGAA TTTTCATTTC TAAGAAGTTC AAAGAAAATG
 228701 AAGTTAGAGG TCATCTTCTG TCTTTCTTAC TGAGCAATGA TGATCCTAAA
 228751 CAGTTACTGT AGTAACATGT GATCTGTTAT CTGAGTAGTA ATAACACATA
 228801 CCCAGTTCTA CATTTCAAGT CACTGCTTTC AAAGCACTCT CCTTGTGTTG
 228851 TAAAGGTGAC CTTTTCAGAT CGTACTTTAA AAAAATAAAA CAGTGGTATC
 228901 CTAACCCACA GGATGAGATT CAAACTCCTA ACCTGGCACA CAAGATTTTT
 228951 TTCTGGCCCT TGCCCTATAC ATCTAGGTTT ATCAATCCCT TCCTCACACC
 229001 TTACATTCCA GTAGACCAA ACTTCTTGAT ATTTCCATGA ATATACTCAG
 229051 TTGTTTCACA CTTCTGAGCT TTCACACTGC TTGATCCTTT CTAGAGAATG
 229101 CTTCCCTTCC CGACTGCTTG GCAGCTCTAC TTCTATCTTT CTATTCAATC
 229151 ATTAAGTGAT TATTGAAAAA AAAGTTGTAT GCCATACTAT GTGTTGGCCT
 229201 CTGAGAATAT TTCAGTGAAC ACAACCTTGC CCTGCCCTCA CAAACACCAG
 229251 AATTACAAAC CTTCTACTTC TCTGTAAGC TTTCTTGGG TTGCCAACTG
 229301 ATTAGACCAT GTCCAAATAA GGCAATGCC CAGCTGTAAC CAGTAAAGCT
 229351 GGTCTATAC CTCACCTCCA TTTTCTATCG ATAAATGCTG CTTGCCTGCA
 229401 GAATAGAGTT CTCCAAACCT CTTGTGGTTC TGAGGGCTGT CCAATTCATA
 229451 AATCATTCTT TGCTTAAATA AACAGTTAAA TTTGTCTCCA AAGGCTGGGA
 229501 AGGAGAGAAG AGAGGAAGAT AAGAAGAGAT TGGTCAATGA GTATAAAGTT
 229551 AAAATTAGAT AGGAGGAGTA AATTTCCGTA TTCTATTGCA CAGTTGGGTG
 229601 ACCGTGGTTA GCAATATCAT ATTGTACATT TCAAAATGGC TAGAAGAGAA
 229651 GATTTTGGAT GTTCTTACCA CGATGAAATG ATGAATGTAT AAGGTGATGG
 229701 ATATGCTAAA TACACTGATT TGATTTTTAT ACAATGTATA CATTTATCTA
 229751 AACACCACAT TGTATCCCAT AATTACATAC AATAATTATG TGTCAATGAA
 229801 AACAAAATTT AAAACATTTT TAAGAGATTT AAGAAATTA TTTGTTCAAA
 229851 GTTAATCTTT TAACCCTAAG TTCTAAAAAC TTACTCTAAC ATAGGTCTTC
 229901 TACAAAGACT ATGCACCAAT ATAGTGATTT CAAAACCTGG TTTAAGGTAA

FIGURE 3, page 73 of 141

229951 ATGCAGAAAT ATTTTTTATG TATTGTTTC TTATCCTGAC CTACCATAAA
230001 AGCTCAATGC CTATATTGGT CCTCTATGGA TGCATAACAA ATTACTCAAA
230051 AACATATGGG CTGAAAAACAA TGATAATCAT TTATTACCTC TCATAGTTGC
230101 TGTAGGTCAT GAATTTAGGA GGGCGTAACT GGATGGTTCT GGCTCAGGGT
230151 CTCTCATGAG TTTGCAGTTA GCTATCACCC AGGGCCACAG TCATCTGAAG
230201 GCTTCACTGG GGCTGGAGAT TGCATTTCCC AGATGACTCA CACAGCTGGC
230251 CTCAGATCCC TTCCAAATTG GCCTTTCCAC AGAGAATCTT GAGTGTCTCT
230301 AAGGATAATA ATGTTAGATA CTGGGCACAG TTTTtagact GACCAATATT
230351 GCTGCCTTGG GAACCTGGAT GTGGCTGATG TTCCTACCGC AAACCTGCCT
230401 GGATGGACTT CATGTGGTCT CTGCTTCTTC TCATTATCAA TTTTTTTTTA
230451 AGACAGGGTC TCACTCTATT GCCTGTGCTG GAGTACAGTG GCACAATCAT
230501 GGCTCACTGC AGCCTTGACC TCCTGGGCTC AGGGTAATCC TCCCGCTTCA
230551 GCCTCTCATG CAGCAGGGAC TACAGGCATG TGCCACTATG CCTGGCTAAT
230601 TTTTTTTTTT TTTTGTATTT TTTGTAGAGA TGGGGTTTTG CCATGTTGCT
230651 CAGGCTGGTC TTGAACCCCT GGGCTCAAGT GGTTCACCTG ACTCAGCCTC
230701 CCAAAGTGCT GGGATTACAG ATGTGAACTA CCATGTCCAG CCAAATTCAT
230751 CTTACTGGCA GAGGCTGGTC ATATTCTAC ACCCTAATTA CATGGGAGAC
230801 TGGTAAGTTA GTCTTCGGCA TTCATGGCTT TAATGGGAGC CAGGCTCTGT
230851 CTCACAAAGT AAAAGATTCC CCTTACAAGG GAAATGAGAA TGTAAGGCCA
230901 AAAATAACAA ATATTTACTA TATTAATGAG CTCCACTGTT GTAAGGATAG
230951 AATTTTAGGA ATAAGTAGAG ATGTGAAAGG AGAGATGGCC CTTGCGGTGT
231001 CTTGTGAAA CATCTCCTCT TTTGGCTTTC ATAGAAGCTA AGGAGTACAT
231051 GATACCAGGT AATCATTTTT CAATTATCT TCTGTTCTGC TGACGATAGT
231101 GAGAGCTACA TGCTTCCCC GCAATTGTCA GGATTACAT TCTAATGAAA
231151 AGTGAGAAGC CATCCTGGTG GTAATGTAAA CTAGTACAAC CACTATGGAA
231201 AACAGTATGG AGATTCTTAA AAGAACTAAA TGTAAGAACTA CCATTCAATC
231251 CAGCAATCTC ACTACTGGGT ATCTACCCAA AGGAAAAGAA GTCATTATAT
231301 GAAAAAAGAT ACTTACACAT GCATGTTTAT AGCAGCGATT GCAAAAATAT
231351 GGAACCAGCA TAAATGTTCA TCAACCAATG AGTAAAGAAA ATGTGGGTATA
231401 TATATATATA CACCATGGAA CACTACTCAT CCATAAAAAA GAACAAAATA
231451 ATGGCATGCA CAGCAACCTG GATAGAGTTA GAGGGGCCAT TATTCTAAGT
231501 GAAGTAACTC AGGAATGGAA AACCACACAT CATATGTTCT CACTTATAAG
231551 TGGGAGCTAA GCTGTGGGGA CACAAAGGCA GAATGATATA ATGGACTCTG
231601 GGGACTCAGG GGGGAAGGGT GAGGGGGGTG AGGAATAAAA GACTACACAT
231651 GGGGCACAGT ACACACTGCT CTAGTGATGG GTGCACCCAA ATCTCAGAAA
231701 CCATCACTAA AGAAGTTATC CATATAGCCA AAAACCACCT GTTCCCCAAA
231751 AACTATTGAA ATAAAAATAA ACAAAAATTT TAAAAACTTA AAAAAAGAGA
231801 AGGAAGTACT GTGTATACAC TTTCTTAAAG TATTTGAATC AGTCTTGAAG
231851 CCAGATCAAC CTCCTATTAC AGAAAAGCAG GTTTTGTGTT TAAAGCTAAA
231901 TTTCTTCATG TTGGCAGATA AGAATAATTA AACTCCCCAA ACATTGGCTA
231951 GTGTCTCCAC AGGGAAAGCA CAAATGAAAA AGTTAGGGTC TGGCTTCCAC
232001 AAATCTCATC TTAGCCTGTA TCCACATTTA ATTACTGAAT GTCAATCCAA
232051 AAAACAGACA TTCTGCTCTT TCCTTTTACT GGTAGCTACT GTTCTTAGAG
232101 GTTTTTCTCT GTGTATTCAA AAGGAAACAA GAATTTCCAA ACTCCTTAAC
232151 TCTTGTGTGT TTTAATCATC TATAAAATTC AGGTGAATAT TTGCAGTGTG
232201 AAATAACCAT AATAAAAAATA TTTTATTTTC TATCTTCTGG TATTTATCAT
232251 ATTTCTCTATA AGTAGCAAGT TTGCTTTTCC CAAGTTGATC CACTTTTCC
232301 CAACTATTTA ATTTTGGTGT AGGCAGTGGA GTCCTATTGA TACACTGAGA
232351 AGCTGCTCCA TGCAAAGCAT TGTGGTGGAC ATCATGGGGA GGTAGTGTA
232401 ATTTGCCTTG GGTCTTTTGT AGCAATAATG CACCTTTATA TATAAGTTTA
232451 ATATACATTT AAGCTTTTACT AGAGCCATAG AAGATAGGAT TCTTTTTTTT
232501 GTGTCAATGA GGCAACTGAG TCACAGATTT TTACCTTTCC AAACATCACA
232551 GAATCAAGAT TCAAACCCAA GTCCTCTAAG CCAGCTCACA TACTTGTCTC
232601 AATATGCCCC AGCTCCCTTC CTACTGAAA GCATTTGAGG TTGTTCTCTC
232651 CTAGACCATC TTCTTCCTTT TCCTCCTGTG CTTTTCTACT CCAGCATCCT
232701 AATGTGGTTT GGCATTGACA CCGCTGATGC CACAGGGTTG ACAACAACTT
232751 CTTTGGCAGT GGCTTCTGCC CTGTACCAAT AAAATCAATT CTCTGAAAGA
232801 GCTGGGGATG GACAAGAAGT GGTAGGAATG GTCATGTCAT TATTTCTAAT
232851 ACTGCTCTTA TCAAATACCC AACTTATTAA AGGAACCAAG ACAATAATCT
232901 CCATGCCCTC AACCTTATCC ACTTCAACCT TTAGGCTGGG TTTTCTAGGA
232951 AGCCGTCTCT GACAGAGTTG AGTAGGCAGG ACTTTTATGC ATGAGTGCCC
233001 TTGGGATTGA CCCTGTGGAC AGAAGGAGAA GGATGCAGGA TGAGGCAGAG
233051 GGAGAAGTTG AGCAGTGATG AAGGCCTGAC AAGCCTTAGC CAAACCTCA

FIGURE 3, page 74 of 141

```

233101 GAGAGCTCCA GTCCCATGGG TGTTGCCAGC AAAGGCCATA ATGGTTAGGT
233151 TCTCTACCTC TACCATGATC AGTCATTAAA GGTTCGCTACT TGGAGGGGCA
233201 TGATTTGGGG GAAGGCAGCT TTCTGAGGCT GAAGAATTTT CTGAAGGGGC
233251 CACAGCTGGA GGCTGTCTAC TCCCAACAGC TGGGGTAGCA AGTTCTTCCT
233301 TCAAGGAGGA TCTGCATAGT GCATCTCCAT TTCTGGGGTG TTGAGGTGTT
233351 GAGGTGAGGC AGTACAGAGA CTACCCTGTT TTGCAGATTC TTCGACAGTT
233401 TTGTTGCCAT TCTGATGTCC ACTATTGTCA CAGGAGAAGC TCAAGGAAAA
233451 ATCTTCACCA AGTTTGTGTC AGCTAAGCCT CTCAGCAGAG TAGAGCAGCT
233501 TTCACAGTGC CCTGCTGATT CACAGCCCTT CATAATAAGT CATGGGGCTG
233551 TCATCTGGAG AGGTGGAGAA ATGAGATGGA AGACATAATG ATCACCCTAA
233601 ATTTCAACCT TTTAGAGGGG AAGTTCTGTC TGATGATCTT ATTTTTTTTT
233651 AATTATCACA TGAAACTCGT TATTTGGTTG TGGCACTTCT ATGGGATGTT
233701 AGAGCACTCA TTTGGGAGTC AGGAAACCAC AGTTCTAGTC TGGGCTCTGC
233751 CCCTTTCTAT GACCTTGTGC AAGTCATAAA ACCTCTCTTG GCCTGAGTCT
233801 TCACACCTGT AAGATGAAGA AATTTGACTT GAGGTGTCT AGGGTCACAT
233851 CCAGCTCAGA ATCATGATGA ATCTCTATCA TTTAGGCCAG AGGTCAGCAA
233901 ACTATGGCCT GCATTCCAAA TCTGTCTCAC TGCCTGTTTT TGTAAATAAA
233951 ATGTTACTGG AACACAGCCA TGCTCATTCA TTTACCTATT GCCTATAGCT
234001 ATTTTCATGC TACTGAAGCA GACTTGAGTT GCAACAGAAA TTCTATGGTC
234051 TATAAAGTCT AGAATATTTA CTACCCGCCC CTTTACAGAT AAAGGTTTGC
234101 TGACCTTGAT CTAGGCAAAT CTTCTGTCTG GTCGCATTCC AAGGAGTAGG
234151 AGGAGAAATA TGAGCCATGA GGATATACTT TTGCAATAAT TTGGCAAAGA
234201 GTGGTATCAG TCAAGTAACT GCTATTTCTT AAGTATTCCT TAGGAAATTC
234251 AGAGCAAGAC GAGGGTTAAA GATTAGGTAA GAAGCATTCT AAATGTACAG
234301 TGCACCAAGG GCAGTGTCTG TGAGGATTCC TGAGTAAGCA ATGTCTCAGG
234351 TGCTTAAGTG AGATCTTGTT TGCCAAAATA TCCACCTCTG TGGTCCCTGC
234401 ATCAGCTCTT TATTACCCAC ATGGCAGGGT GTTTAGCAGG GAGGGCAAAC
234451 ACAGCTTTTT CTTTTATGAT CAAGGTCATT TGTCAGCAA CTGAAATGGG
234501 TAAAGGGAAA TTTTAGAAGA AATTTTCAA AGAAATGAGA GAAGAACTC
234551 TCTGCTGGT AAATGTCAGA ATTATCAAGC TGTCACCTCT TCAGGAAAAA
234601 TTAACCTTGCT GGTGAGAGAC CATAGAAGTA GGAGGAATCC TGACAATATT
234651 ACTATTATGA GCTGTGCTTT GCACTTTTAG GAAACACAGC ATCCAATTGC
234701 CAAATGTGTC TTCGTATCAT TTTGTTTTCA TCTCATTGTC AAAACATCCC
234751 CATGGGATAT TGTCAAGTGT CATAATCCTC ATCATTCTAT ATTTACAGA
234801 TGAGAAGAGA GACTTCAGGA TGATTTTGCC TGACATAATG CTCATAACAT
234851 TTACTGTTGG TCCCAGCCAT TTGCTTCTTA GCATTTGTTT CCTTTGATTG
234901 CTCTTTATCT TTGTTAGCAT AGGCATTGTC TTCCCAAGTA AATGCTATGC
234951 CTGACCTATG TCTTAGATCA CAGAATGTTA GAATTGAGGG AAGGCCTTCA
235001 GTCTAATGAA ACTACTGAAA TATAAAATGA GGAAGTGAG ACCCAGGGAG
235051 GTGGCCTGAG CTGGTGAGAG AACTAAAAGA ATAAGTGGG TCCCCTAACT
235101 TGAAGGTTAT TGCTTTTTCC ACGGACCTCA TTATACCTCT TTGCATGCCC
235151 CATACATAGT ATAGTGTCTT ATGTATATGT ACTCCATAGT ACTACTAGGG
235201 ATCATCTGTA TAGATAGCCT ATCTTCTTAA TTGACTGCAA GATTTTATA
235251 GGTTAAGAAT CACAGCTACT ATTTATATTG CTTTGTATTT AACTCCCACC
235301 TATTGAGCAT ATAAAATATA TGGCTTAAAA AACTGGAAAA AGATGAGCAA
235351 ATTAAGCCA AAGCAAATTG AAGGGAGAAA ATTACAAAAA TCAGAGTGGA
235401 AATAAGCAAA ATAAAGAATG GAAAAACAAAT AAAGGATGTC AGTGAAACAA
235451 AAAAAAATAG GTTCTTTGTA AAGATCAACA AATATTGACC AACAAAAATA
235501 AAGAGAAGAT TCAAATTAAT ACATCAGAAA TGAAAGAGGG GACATTACTA
235551 CTAACCTTAA AGAAATAAAA AGGATTGTAA AGGTATACTA CGAACACAG
235601 TATACCAACA AATCAGATAA ATTAGATGAA ATGGACAAAT TTCTAGAAAG
235651 AAAAAATCA CTGAAACTGA CTCAGAAGCA ATAGAAAGCT GAATACAGGG
235701 ATGTGCACCT GTAGTCCCAG CTATTGGGAG GCTGAGGTGG GAGAATCACT
235751 TGAGCCTAGG AGTTCAAAGT CAGCCTGGGC AACATAGCAA GAGTCTGTCT
235801 CTAACATAAA ATACACAAAT AATTTTTTTA AAAAAAGAA ATAGAAAACC
235851 TGAATATGCC TATCATATTC TATAGGACAT AGATTTTCTA TATACAAAAT
235901 CATGTTATCC GCAAATTGAG ATAATTTTAC TTTTTCCTTT CCAATTTGGA
235951 TTCTTTTGAC TTCTTTTCTT TGCCCAATTT CCCTGGCTAT AACCTGTAGT
236001 ACAATGTTAT ATAAAAATGG CAAGAGAAGA CATTCTTGTC AGGAGGAAAG
236051 ATATACTATC CTTTCTTCAT GTTACTGGAT TTGACTTACT AGTATTTTAA
236101 TAAAGGCAAA ATTAGGGTTT TGTATTATAC TTTAAGATCT GGGATACATG
236151 TGCAGGAGGT GCAAGTTTGT TACATAGGTA TACACATGCC ATGGTGGTTT
236201 GCTGCACCCA TCAGCCCGTC ATCTACATTA GGTATTTCTC CTAATGCTAT

```

FIGURE 3, page 75 of 141

236251	CCCTCTACTT	GTCCCCCAAC	CCCCGACAGG	CCCTGGTGTG	TGATGTCCCC
236301	CTCCCTAAGT	CCATGTGTTT	TCATTGTTCA	ACTCTCACTT	ATGAGTGAGA
236351	ACATGCAATG	TTTGGTTTTT	TGTTCTTGTG	TTAGTTTGCT	GAGAATGATG
236401	GTTTCTAGTT	TCATCCGTCT	CCCTGCAGAG	GAAATGAACT	CATCCGTTTT
236451	TATGGCTCCA	TAGTATTCCA	TGGCATATAT	GTGCCACATT	TTTTTAAATF
236501	ATACTTTAAG	TTCTAGGGTA	TATGTACACA	ATGTGCAGGT	TTGTTACGTA
236551	TGTATACATG	TGCCATGTTG	GTGTGTGCAC	CCATTAACCT	GTCATTTACA
236601	TTAGGTGTAT	CTCCTAATGC	TATCCCTCCC	TCCTCCACCC	ACCCCACGAC
236651	AGGCCCTGGT	GTGTGATGTT	CTCCACCCTG	TGTCCAAGTG	TTCTCATTGT
236701	TCAATTCTTA	CCAATGAGTG	AGAACATGCA	GTTCTCACTG	GTTTTCCAG
236751	CACCATTTAT	TAAATAGGAA	ATCCTTTCCC	CATTTCTTGT	TTTTGTGAGG
236801	TTTGTCAAAG	ATCAGATGGT	TGTAGATGTG	TGGTATTATT	TCTGAGGGCT
236851	CTGTTCTGTT	CCATTGGTCT	ATATATCTGT	TTTGGTACAA	GTACCATGCT
236901	GTTTTGGTTA	CCGTAGCCTT	GTAGTATAGT	TTGAAGTCAG	GTAGTGTGAT
236951	GCCTCCAGCT	TTGTTCTTTT	GGCTTAGGAT	TGTCTTGGCA	ATGTGGGCTC
237001	TTTTTGTTTG	ATTTTCTGTC	CTTGCAATAG	TTGGCCACAT	TTTCTTAATC
237051	CAGCCTAACA	TTGATGGACA	TTTGGGTTGG	TTCCAAGTCT	TTGTTATTGT
237101	GAATAGTGCC	ACAATAAACA	TACATGTGCA	TGTGTCTTTA	TAACAGCATG
237151	ATTTATAATC	CTTTGGGTGT	ATACCTAGTA	ATGGGGTCAC	TGGGTCAAAT
237201	GGTATTTCTA	GTTCTAGATC	CTTGAGGAAT	CACCACACTG	TCATCCACAA
237251	TGGTTGAACT	AGTTTACAGT	CCCACCAACA	GTGTAAAAGT	CCCTATTTCT
237301	CCACATCCTC	TCCAGCACCT	GTTGTTTACC	TGACTTTTTTA	ATGATCGCCA
237351	TTCTAATCTT	TGTGAGATGG	TATCTCATTG	TGGTTTTGAT	TTGCATTTCT
237401	CTGATGGCCA	TGTTTATGTA	GCATTTTTTC	ATGTGTCTGT	TGGCTGCATA
237451	AATGTCTTCT	TTTGAGAAGT	GTCTGTTTCT	ATACTTTGCC	CACCTTTTGA
237501	TGGGGTTGTT	TGATTTTTTC	TTGTAAATTT	GTTTAAGTTC	TTTGTAGATT
237551	CTAGATATTA	GCCCTTTGTC	AGATGAGTAG	ATTGTAAAAA	TTTTCTCCCA
237601	TTCTGTAGGT	TGCCTGTTCA	CTCTGATGGT	AGTTTCTTTT	GCTGTGCAGA
237651	AGCTCTTTAG	TTTAATTAGA	TCCCATTGTG	CAATTTTGCC	TTTGTGCGCA
237701	TTGCTTTTGG	TGTTTTAGTC	ATGAAGTCCT	TGCCCATGCC	CATGTCCTGA
237751	ATGGTATTGC	CTAGGTTTTT	TTCTAGGATT	TTTATGGTTT	TAGGTCTAAC
237801	ATTTAAGTCT	TTAACCCATC	TTGAATTAAT	TTTTGTATAA	GGTGTAAAGGA
237851	AGGGATCCAG	TTTCATCTTT	CTGCATATGG	CTAGCCAGTT	TTCCGAGCAC
237901	CATTTATTAA	ATAGGGAATC	CTTTCCCCAT	TTCTTGTTTT	TGTCAGGTTT
237951	GTCAAAGATC	AGATGGTTGT	AGATGTGTGG	TATTATTTCT	GAGGGCTCTG
238001	TTCTGTTTCC	TTGATCTATA	CCTCTGTTTT	GGGACCAGTA	CCATGCTGTT
238051	TTGGTTACTG	TAGCCTTTGA	GTATAGTTTG	AAGTCAGGTA	GCGTGATACC
238101	TCCAGCTTTG	TTCTTTTGGC	TTAGGATTGT	CTTGGCAATG	TGGGCTCTTT
238151	TTTGGTTCCA	TATGAACCTT	AAAGTAGTTT	TTTTCCAATT	CTGTGAAGAA
238201	AGTCATTGGT	AGCTTGATGG	GGATGGCATT	GAATCTATAA	ATTACCTTGG
238251	GCAGTATGGC	CATTTTCACA	ATATTGATTC	TTCTATCCA	TGAGCATCGA
238301	ATGATTTTCC	ATTTGTTTGT	GTCTCTTTT	ATTTTATTGA	ACAGTGGTTT
238351	GTAGTTCTCC	TTGAAGAGGT	CCTTCACATC	CCTTGAAAGT	TGGATTCCCTA
238401	GGTATTTTAT	TCTCTTTGAA	GCCATTGTGA	ATGGGAGTTC	ACTCATGATT
238451	TGGTTCTCTG	TTTGTCTGTT	ATTGGTATAT	AGGAATGCTT	GTGATTTTGT
238501	CACATTGATT	TTGTATCCTG	AGACTTTGCT	GAAGTTGCTT	ATCAGCTGAA
238551	GTAGTTTTTG	GGCTGAGACG	AGGGGGTTTT	CTAAATATAG	ACTCATGTGA
238601	TCTGCAAACA	GAGACAATTT	GACTTCCTCT	TTTCTATTAT	GAATACCCTG
238651	TATTTCTTTC	TCTTGCCTGA	TTGCCCTGGC	CAGTACTTCC	AATACTATGT
238701	TGAAATAGGAG	TGATGAGAGA	GGTCATTCTT	GTCTTGTGCC	AGTTTTCAAA
238751	GGGAATGCTT	CCAGCTTTTG	CCCATTGAGT	ATGATACTGG	CTGTGGGTTT
238801	GTCATAAATA	GCTTTTATTA	TTTTGAGATA	TGTTCCATCA	AAACTTAGTT
238851	TATCGAGAGT	TTTTAGCATG	AAGGGGTGTT	GAATTTTGTC	GAAGGCTTTT
238901	TCTGTGTCTA	TTGAGATAAT	CATGTGGTTT	TTGTCAATTT	TTCTGTTTAA
238951	GTAATGGATT	ACTTTTATTG	ATTTGCCTAA	GTTTAACCAG	CCTTGCATCA
239001	CAGGAATGAA	GCTGACTTGA	TTGTAGTGGA	TAAGCTTTTT	GATGTGCTGC
239051	TGGATTTCAGT	TTGCCAGTAT	TTTATTGAGG	ATTTTCGCAT	CGATGTTTAT
239101	CAGGGATATT	GGCCTGAAAT	TTTCTTTTTT	TTGTTGTGTC	TCTACCAGGT
239151	TTTGGTATCA	GGATGATGCT	GGCCTCATAA	AAAGTCAGGG	AGGAATCCCT
239201	CTTTTCTTAT	CGTTTGGAAAT	ACTTTCAGAA	GGAATGGTAC	CAGCTCTTCT
239251	TTGTACCTCT	TGTAGAATTC	GGCTGTGAAT	CCATCTGGCT	CTGGACTTTT
239301	TTTGGTTGGT	AGGCTGTTAA	TTACTGCCCC	AATTTAGAAA	TGTGTTCTTG
239351	GTCTATTTCAG	GGATTAACT	TCTTCTGAT	TTAGACTTGG	GAGGGTGTAT

FIGURE 3, page 76 of 141

```

239401 GTGTCCAGGA ATTTATCCAT TTCTTCTAGA TTTTCTAGTT TATTTGCATA
239451 GAGGTGTTTA TAATATTCTC TGATGGTAGT TTGTATTTCT GTGGAATCAG
239501 TGGTGATATC CCCTTTATCA TTTTATTATG TGCTATTGTT ATTCTTCTCT
239551 CTTTTCTTCT TTATTAGTCT GGCTAGCGGT ATATCTATTT TGTGTCAGT
239601 AAACCAACTC CTGGATTCAT TGATTTTGTG AAGGGTTTTT CCTGTCTCTA
239651 ACTCCTTCAG TTTTGCTCTG ATCTTAGTTA TTTCTTGCCT TCTGCTAGCT
239701 TTTGAATTTG TTTGCTCTTT CTTCTCTAGT TCTTTAATTG TGATGTTAGG
239751 GTGTCAATTT GAGATTTTTC CTGCTTTTGC TTGTGGGCAT TTCATGCTAT
239801 AAATTTCCCT CTAAACACTG CTTTAGCTGT GTCCCAGGGA TTCTGGTACG
239851 TTGTGCTCTT GTTCTCATCA GTTTCAAAGA ACTTATTTAT TTCCGCCTAT
239901 TTCGATTATT ACCCAGTAGT CATTACAGAG CAGCTTGTTT AGTTTCCATG
239951 TAGTTGTGTG TGTGTGAGTC GTTTCTTAAT CCTCAGTTCT AATTGATTGC
240001 ACTGTGGTCT GAGAACTGT TTGTTATGAT TTCCATTCTT TTGCATTTGC
240051 TAAAGGAGTG TTTTACTTTC CAATTATGTG GTCAATTTTA GAATAAGTGC
240101 GATGTGGTGC TGAGAAGAAT GTATATTCTG TTGATTTCCG GTGGAGAGTT
240151 CTGTAGATGT CTATTAGGTC TGCCTGGTCC AGATCTGAGT TCAAGTCCTG
240201 AATATCCTTG TTAATTTTCT GTCTCATTGA TCTGTCTAAT AAAGTCTCTC
240251 ACTATTATTG TGTGTGAGTC TAAGTCTCTT TGTAGGTCTC TGAGGGCTTG
240301 CTTTATGAAT CTAGGTGCTC CTGTATTGGG TGCTTATACA TTTAGGATAG
240351 TTAGCTGTTT TTGTTGCATT GATCCCTTTA CCATTATGCC ATGTCCTTCT
240401 TTGTCTCTTT TAATCTTTGT TGGTTTAAAG TCTGTTTAT CAGAGACTAA
240451 ATTGCAACAC CTGCTTTTTT TTGCTTTCCA TTTGCTTGGT AAATATTATT
240501 CCATCCCTTT ATTTGAGGCC TATGTGTGTC TCTGCATGTG AGATGGGTCT
240551 CCTGAATACA GCATACTGAT GAGTCTTGAC TCTCTATCCA ATTTGCTAGT
240601 CCATGTCTTT TAATTGGGGC ATTTAGCCCA TTGACATTTA AGATTAATAT
240651 TGTTATGTGT GAATTTGATC CTGTCATTAT GATGCTAGCT CTTTATTTTG
240701 CTCATTAGTT GATGCAGTTT CTTCATAGTT TAAATGGTCT TTACAATTTA
240751 GCATGTTTTT GCAGTGGCTG GTACTGGTCG TTCCTTTCCA TGTTTAGTGC
240801 TTCCTTCAGG AGCTCTTGTA AGGCAGGCCA GGTGGCGATA AAATCGCTCA
240851 ACATTTAGTT GTCTGTAAAG GATTTTATTT CTCCCTCGCT TATGAAGCTT
240901 AGTTTAGCTG GATATGACAT TCTGGGTGA AAATCTTTT ATTTAAGAA
240951 GTTGAATATT GGCCCCACT CTCTTCTGGC TTGTAGGGTT TCTGCTGAGA
241001 GAGCCACTGT TAGTCTGATG GGCTTCCCTT TGTGGGTAAC CTGACCTTTC
241051 TCTCTCTTCT GGCTTGTAGG GTTCTCTGCT AGAGATCCAC TGTTAGTCTG
241101 ATGGGCTTCC CTTTGTGGGT AACCTGACCT TTCTCTCTGG CTGCCCTTAA
241151 CCTTTTTTCC TTCATTTCAA CCTTGGTGAA TCTGACGATT GCGTGTCTCG
241201 GGGTTGCTCT TCTCGAGGAG TATCTTTGTG TGTTTCTCTG TATTTCTTGA
241251 ATTTGAAAGT TGGCCTCTCT TGCTAGGTTG GGAAGTTCT CCTGGATAAT
241301 ATCCTGAAAT GTGTTTTCCA ACTTGGTTCC ATACTCTCA TCACTTTCAG
241351 GTACACCAAT CAAACATAGG TTTGGTTTCT TCACATAGTC CCATATTCTT
241401 TGGAGGCTTT ATTCATTCCCT TTTTATTCTT TTTTCTCTAA TCTTGTCTTC
241451 ATGCTTTTAT TCATTAAGTT CATAGTCTCT GATATCCTTT CTTCCTTCTG
241501 ATCAGTTTCA CATTGATAC TTGTGTATGT TTCACAAAGT TCTCGTCTG
241551 TGTTTTTCAA CTCCATCAGG TCATTTATGT TCTTCTCTAA ACTGGTTATT
241601 CTAGTTAGCA ATTCGTCTAA CCTTTTATCA ACATTCTTAG CTTCTTGTCA
241651 TTGGGTTAGA ACATGCTTTT TTAGCTCAGA GGAGTTTGT ATTACCCACC
241701 TTCTGAAGCC TACTTCTGTC AATTTGTCAA GCTCATTCTC CCTCCAATTT
241751 TGTTCCCTTG CTGGTGAGGA GTTGTGATCC TTTGGAGGGG AAGAGGCATT
241801 CTGATTTTTC AAATTTTCAG TCTTTTGTG CTGGTTTTC CTCATCTTCA
241851 TGGATTTATC TACCTTTGGT CTTTGATGGT GACCTTCTGA TGGGGTTTCT
241901 GAGTGGATGT CCTTTTGTG GATGTTGATG CTATTCCTTT CTGTTTGTTA
241951 GTTTTCTTTC TAACAGCCAG ACCCTCTGTC TGCAGGCTG CTGGAGTTTG
242001 CTGGAGGCTC ACTCCAGACC CTGTTTGCCT GAGTACCACC AGTGGAGGCT
242051 GCAGAACAGC AGCAATTGCT GCCTGTTCCT TCCTCTGGAA GCTTCATCCC
242101 AGAAGGGCAC CCACAGATG CCAGCCCAA CTCTCCTGTA TTTGTCTGTC
242151 AACCCTGCTT GGAAGGTGTC TCCAGTCAG GAGGCATGGG GGTCAAGGAC
242201 CCACTTAAGG AGGCAGTCTG TCCCTTAGCA GAGCTCGAAC ACTGTGTTAG
242251 GAGATCCACT GCTCTCTTCA GAGCCAGCAG GCAGGGACGT TTAAGTCTGC
242301 TGAAGCTGTG CCACAGCTC CCCTTCCCCC ATTGGCTCTG TCCCAGGGAG
242351 ATTGGGGTTT TATCTTTAAT CCCCTGACTG GGGCTGCTGC CTTTTTTTCT
242401 GTGATGCCCT GCCCAGAGAG GAGGAATCTA GAGAGACAGT CTGACTACAG
242451 AGGCTTTGCC AAGCTGCGGT GGGCTCTGCC CAGTTCAAAC TTCCCAGCAG
242501 CTTTGTTTAC ACTATGAGGG GAAAACCACC TACTCAAGCC TCAGTAATGG

```

FIGURE 3, page 77 of 141

242551	CAGATGCCCC	TCCCCCAC	AAGCTTGAGC	ATCCAGGTT	GACTTCAGAC
242601	TGCTGTGCTG	GCAGTGCAAA	TTTCAAGCTG	GTGGATCTTA	GCTTTCTGGG
242651	CTCTGTGGGG	GTGGGATCCG	CTGAGCTAGA	CCACTTGGCT	CCCTGGCTTC
242701	AGCCCCCTTT	CCAGGGAAGT	GAACGATTTT	GTCTCGCTGG	CATTCCAGGT
242751	GCCACTGGAG	TATGAAAAAC	AACTCCTGCA	GCTAGCTCAG	TGTCTGCTCA
242801	AATGGCCACC	CAGTTTGTG	CTTGAAAACC	AGGGCCCTGG	TGGCATAGGC
242851	ACCCGAGGGA	ATCTCTGGT	GTGTGGGTTG	CAAGAACCAT	GGGAAAAGCA
242901	TAGTATCTGG	GCCAGAGTGC	ACCATTCTCT	ATGGCACAGT	CCCTCATGGC
242951	TTCCCTTGGC	TAGGCGACGC	CCCACCCTGC	TTCAGCTCAC	CCTCTGTGGG
243001	CTGCACCCAT	TGTC'TAACCA	GTCCAATGA	GATGAGCTTG	GTACCTCAGT
243051	TGGAATATGA	GAATCACC	GCCTTCTGTG	TTGATCTCAC	TGGCAGCTGC
243101	TGACTGGAGA	TGTTCTTATT	GGCCATCTT	GCCCATTCCA	TCCAAAAGTA
243151	GTTTTTGAAA	ATTAACTAGG	CGGATTAAGGA	TTCAGCTATT	TTTCAGAAAG
243201	CAGAGCTTTA	AGAAAGCAGA	GCTCTAGAAC	CAGGGCTTCA	TGGACGTGAG
243251	ACCAGTGCAG	TTACACAGAG	CCCTAGGTTT	AGGAAGGAGC	CCACACATGG
243301	GGTTTCATAA	AATTTTATCT	TTGAATTTGT	GTTTATAGAG	TGAAAGCTGA
243351	TAACACAGTG	GAACACAGGC	TCAAGGCTTA	AAGCCTTGCT	CATGTGCTGT
243401	CTTGCCTTTA	AGACATCTAC	CTGGGAAGGT	TCCTCTGCCA	CCTAGCCCTT
243451	AATCCCCATC	CCATACTAC	TGCAATCTTC	CATTCCCAAT	GGGATCCTAG
243501	GTAATAGTGA	GGAAGGGTTG	CCGTGAGGTA	AGACTGCCAG	GTCCCTATAA
243551	GTGTCTACAC	TCCCTGCGAG	AGTATCTGCC	CTAGTTCCTG	AGGGAGAATG
243601	ACATTAAATA	CCCAACAAAA	AGCACATGA	CAGGTCCACA	GACAAATACA
243651	GACCCCCCAA	AAAACAGCTT	TTCTCTTGTT	TCTTGAACAA	GGATTTCTGC
243701	GTTGTCACTT	AGCACTGGGC	CCCACAAAT	ATGTAGCTGG	CCTGTCTAGA
243751	GCCTTACTAT	TCAAAGTGTG	GTTGCAGGAC	CAGCAGCAT	GGTATCACCT
243801	GGGAACATAT	GGAACGCTAG	AATCCCAAGC	CCTACCCAAA	CCTACTAAAG
243851	AAGAATCTGC	ATTTTAACAA	GATCCCTGGA	TGATTTGTAT	GACATTAAAG
243901	TTTGAGAAAG	AGTGGTCTAA	AACACACTCT	GGGATTCAGT	CACCTATTGG
243951	ATGACATCTA	TGTTCTTGCC	CCAATTATTT	TTATTATGAT	TGTTAAATGA
244001	ATTGTCCTTT	TCTTTGACAT	AAAGCAACTA	CTATT'CATGT	TGGAAGATGG
244051	GAGGCAGAGG	GAAGAAAGT	TGGCCAATAA	GAACACATGA	AAAAGGAATT
244101	GCTCTGAGCA	CCAAGCTTTG	CCAACCCTGT	TACTCGAAAT	TATACTTGCC
244151	CTGTTTTCTA	CCCTTGGGCT	TAAGGCTTAG	CATCTTTCCT	AGCAGACTGA
244201	GTGCCTTATT	GAGGGAAACT	GTAGCCAGCT	TAAAATAAAC	TGCAGCTCTC
244251	CTGGAAATTG	CTTTGACCTT	TATTTGCATA	AGTCTTCAA	ACTTGCCAGC
244301	TCTGGAAAA	ATGGGAAAGG	AGCAACCTAT	TTTTATTCTT	GGCGGAACCT
244351	ATTTTGTAGC	TTGCAATGTA	GTTACTTAGC	ATGGTATGGT	TGGTGTGTTT
244401	TTAGTAACCT	TTTAGGTCTT	AGGAAAGATT	ATTTGAAAAA	GCAACCAACT
244451	GGAATATGAA	ATAAACCCCT	ATGCCCTCCT	CTTGCCCACT	CCCCAAGCTT
244501	CCTGGGGAAA	AGTATCTGTC	CTGGCCAGAG	TTAGTGGGAA	GGTGGAGCT
244551	GACAGAAAGC	TGCTGTCCAG	TTGCAGTGAG	GGCCGAGGCA	AATTTTCTCT
244601	CCAGGTGTGG	AAGGGGCAAT	CTCCAGGAGT	GAGAGAAATG	GGAGCAATCA
244651	GTTGCTGGTA	CTTGTGTCTT	TATCATGAAG	GCATAACTGG	TGAATGTACT
244701	ATGAGCAACA	CATTGTTAAT	TTGTATTATG	CCCTTTACAA	GGTTGTGCCC
244751	TGTTAATCCA	GTATTTCCAT	AACTAGGGAT	CTAGTCCAAG	GAAAGATCAG
244801	AGACTTTGGC	ACAGAATTAA	GCTGGAGAAT	ATT'CATCTCA	ATTATATCTA
244851	TAGGAGCAAG	AAGTTCAAAG	TGGGATACAT	GCCCCAACAG	GTAGTGCAAA
244901	AGGAGGATGT	ATGTGAGACA	TATTAGAATT	TGCATTTAAT	TTTTAAAAAT
244951	TAAAAAATAG	AGCCAGTCGG	GGTGGCTCAC	GCCTGTAATC	CCAGCACTTT
245001	GGCAGGCCGA	GGCAGGCCGA	TCACCTCAGG	T'CAGGAGTTC	GAGACTAGCC
245051	TGACCAACAT	GGCAAAACCC	TGTATCTACT	AAAAAGAAAA	AAATTAGCTG
245101	GGCTTGCTGG	CGGGAGCCTG	TAATCCAGC	TACTTGGGAG	GCTGAGGCAG
245151	GAGAATTGCT	TGAACCCAGG	AGGTGGAGGA	TGCAGTGAGC	CGAGATCTCA
245201	CTATTGCACT	CCAGCCTGGG	CAACAAGAGC	AAA'ACTCCAT	CTCAAAAAAA
245251	TAAAAAGGTC	GGGTGTGGTG	GCTCAGCCCT	GTAATTCAGC	CAGTTTGGGA
245301	GGCCGAGGTG	GGCGGATCAC	GCTAGCTCGG	GAGTTT'AAGA	CCAGCCTGAC
245351	CAACAGGAGA	CCAACAGGAG	ATAACCTGTC	TCTACTAAAA	ATACAAAATT
245401	AGCCAGGCAT	GGTGGCGCAC	GCCTGTAATC	CCAGCTACTC	AGGAGACTGA
245451	GGCAGAAGAA	TCACTTGAAC	CCGGGAGGCA	GAGGTTGCGG	TGAGCCGAGA
245501	TCACGCCATT	GCATTCCAGC	CTGGGCAACA	AGCAGCGAAA	CTCCGTCTCA
245551	AAAAAAAGAA	GAAGAAAAAG	TTTTACTAAT	ATGTAAAAAT	GGGACTTCCA
245601	CCTTGCTTCT	TTACTTGGTG	CCTAAGTCAA	GCAGGCACAT	GTTATATGAG
245651	ATATGTTGAG	AAAAGAATGG	GAATTT'CATF	ACATGAGTCT	CTTCTCTCTG

245701	ACATAGCAAC	TACATGGATA	TAATTTATAA	ATGATCATTG	GAGTGGACAG
245751	TTTTTTACTG	ATGGGATGTG	AAGCACCTTA	TAAGAGATCT	AAGGACGTGC
245801	ACAGGGAGTA	CTCTGCTCCT	AGTTCCAGGG	AGGAAAGAGC	AGCATAGGGC
245851	CAAAATTGTAA	ATTCAGCTCT	ATGGATTGCC	CTGAGCTCTT	GCTAATGGGC
245901	CAGTTTTAGC	TTTTTTTTTT	TTTTTTTTTT	TTTTTTTTTT	TTGAGAACAG
245951	AAGCCTTGTT	CTTTCACCCA	GGCTGGGAGT	GCCGTGGTGC	GATCTGAGCT
246001	CATTGCAACC	TCCGCCTCCC	AAGTTCAAGT	GATTCTCCTG	TCTCAGCCTC
246051	CAGAGTAGCT	GGGATTACAG	GCAAGTGCCA	CCACACCCAG	CTAATTTTTTA
246101	TATTTTTTAG	AGAGACGAGG	TTTCACCATT	TTGGCCAGGC	TGGTCCCAAA
246151	CTCGTAGCCT	CAGGTGATCC	CCCCACCTCA	GCCTTCCAAA	ATGCCGGGAT
246201	TACAGGCATG	AGCCACTGCA	GCCAACCCAG	TTTTAGCTTT	TTAATGGAA
246251	GTAGTGTTGT	TTCAGTTGAT	GGAATATTTT	TTTCCCTCAG	TTTCAACAT
246301	TTTTATAAGA	GCCTTCAGGA	TGTTTCATTA	AAAAGTGTAG	CTCTCTCAGC
246351	AGATTTCATT	ACACCTCAAC	TTTCATTACC	AACTCTTACC	CTCTGAACAC
246401	AACTTTGGCC	TTCTGCTTCA	TTCTGCTGAA	GTTTAAAGCT	GCAGATAGGA
246451	CCTCTGGTCA	GCATTTTGCT	TTCACATTGA	AAAAAGCTA	ATGCTCAGGT
246501	ATAAGATTAA	GATAAAAGGA	AAACTTAAGT	TATTAGAAAA	ATTCTAGTC
246551	ACTTAGTCAA	ACATCCACAC	CTGCTGAAAG	AGAATGGCCA	AAGGGTCCCT
246601	AGGAACACTT	GCTTTTCTAT	AGATACATTT	CCCCCTGAGT	TTTCTAGGAT
246651	AAAAAGCTCA	TCTTTTAAAT	AATGGTGTTC	TGTTTAAACA	ATCCTTTGTG
246701	AGAGAGGCTT	TCTCCTGGAA	TACCTTGTGC	ATATTAAAA	TGTAATAAT
246751	CTTGTCATTT	GGAATAAATC	TTCCTAATGT	CGGTGTTATA	ATTGAATTCA
246801	TCTCTAATTA	ATGTAGCAAT	ACCATGTGGC	AAAGGTGGAT	TAGCTTCTGT
246851	TTTCTGATTG	CCCTTGAACA	TCGCCTTGAA	GTTCGAGGAT	TGCTGATGAA
246901	GTCAATAAGG	GCTGTGCATT	GATTTTCAGA	CACAAGAGCC	ATCACCACCA
246951	TGGCTGAAGA	CATGTCCCCA	GGACCACCAA	TTTTCAACAG	TGTGATGGCC
247001	AGGACCAAGA	TGAACCGCAT	GAGGGAGTAA	GTAGCATGTT	GCCTGCCCCC
247051	TAGGAAGGTG	CAGTGTAAAA	GCATATTGAC	CAAGTGTGTG	ACCAGTCAT
247101	GTGATACTGT	CTTAGTCCAT	TTGTGCTGCC	GTGACAAAA	ACCTGGGACT
247151	AAGCTGTTCC	AACTTAGAAA	CTTCTCTCTA	AAATTCATT	TCTGTATTGG
247201	TGCTGTCGA	ATAATTAGGG	AAGTTTGCCA	AGAATTATTT	TTCAGTTGAT
247251	TTGCACTTAT	AGTATTTCTG	CAGCACAGCA	CATTCTCATC	CATGCTAATG
247301	TTTGAAGACA	AAGGAGAAAA	AAATGCTGAA	AATTATTTCC	AAGCTCTAAG
247351	CTGTTACTAT	GTTTATATAC	TTATTGTTTT	CTAGCCCTAC	CTGTACCAGA
247401	GTGGTCTTTT	TTTTTTATTA	TTATTATACT	TAAAGTTTTA	GGGTACATGT
247451	GCACATTGTG	CAGGTTAGTT	ACATATGTAT	ACATGTGCCA	TGCTGGTGCG
247501	CTGCACCCAC	TAACCTCATCG	TCTAGCATTA	GGTATATCTC	CCAATGCTAT
247551	CCCTCCCCCC	TCCCCCACC	CCACAACAGT	CCCCAGAGTG	TGATATTTCC
247601	CTTCTCTGTG	CCATGTGATC	TCATTGTTCA	ATTCCCACTG	ATGAGTGAGA
247651	ATATGCGGTG	TTTGTTTTTT	TGTTCTTGCG	ATAGTTTACT	GAGAATGATG
247701	ATTTCCAGTT	TCATCCATGT	CCCTACAAAG	GACATGAACT	CATCATTTTT
247751	TATGGCTGCA	TAGTATTCCA	TGGTGTATAT	GTGCCACATT	TTCTTAATCC
247801	AGTCTATCAT	TGTTTGACAT	TTGGGTGGT	TCCAAGTCTT	TGCTATTGTG
247851	AGTAGTGCCA	CAATAAACAT	ACGTGTGCAT	GTGCTTTTAT	AGCAGCATGA
247901	TTTATAGTCC	TTTGGGTATA	TACCCAGTAG	TGGGATGGCT	GGGTCAAATG
247951	GTATTCTTAG	TTCTAGATCC	CTGAGGAATC	GCTACACTGA	CTTCCACAAT
248001	GGTTGAACTA	GTTTACAGTC	CCACCAACAG	TGTAAAAGTG	TTCTTATTTT
248051	TCCACATCCT	CTCCAGCACC	TGTTGTTCCT	TGACTTTTTT	TTTTTTTTTT
248101	TTTTTTTTTT	TTTTTTTGAA	CGGAGTCTTG	CTCTGTCGCG	CAGGCCGGAC
248151	TGCGGACTGC	AGTGGCGCAA	TCTCGGCTCA	CTGCAAGCTC	TGCTTCCCCG
248201	GTTACAGCCA	TTTCTCTGCC	TCAGCCTCCC	GAGTAGCTGG	GACTACAGGC
248251	GCCTGCCACC	GCGCCTGGCT	AATTTTTTGT	ATTTTTTAGTA	GAGACGGGGT
248301	TTACACTTGT	TAGCCAGGAT	GGTCTCGATC	TCCTGACCTC	GTGATCCACC
248351	CGCCTCGGCC	TCCCAAAGTG	CTGGGATTAC	AGGCGTGAGC	CACCGCGCCC
248401	GGCCGTTTCC	TGACTTTTTTA	ATGATTGCCA	TTCTAACTTG	TGTGAGATGA
248451	TATCTCATTC	TGGTTTTGAT	TTGCATTTCT	CTGATGGCCA	GTGATGATGA
248501	GCAATTTTTC	ATGTGTTTTT	TGCGTTCGAT	AAATGCTCTC	TTTGTGAGAT
248551	GGTCTTATAA	TAACATAAAT	ACCATGGCAA	GAAGTATTC	CCAGAAATTG
248601	AAAGTGAGGG	AGTATGGATT	AATTTTTTCC	TCTGTAGAGG	GAAACTACCT
248651	CCACCTCTCC	TTGCTTTGAG	GAGATAATA	AGAAGTGTT	GCTAATTTCC
248701	CAGTTGATAG	TCTTTAAAGA	GAAGAAAAGT	GGTTTGCTTA	TTTTACCGGT
248751	AAAAGTTAAC	AATGTGGTGT	CAGATTTTTT	ATCTAAGACT	TCATCACTTT
248801	TGCAAAGTAC	ACAATACCCC	ATTTCTTAGC	ATATTATGAA	ATGTTTTTAA

248851	TAATTAATAAT	GAAATATTT	TGCTAAATTA	ATTGGCCAAG	ATGCATTCTA
248901	ATGATTTTAT	TCCTAGTGTG	TTGTTTTTTT	TCTCCTTATT	GCTTGGCTGT
248951	AATTGACCAA	GTACTTTCTG	GCTCACCTTT	TTCATGTGGG	CTACTGCAGT
249001	TTGGGTTACT	CCCCATGGA	TGGTATTGCT	CCTCTAGTGG	AATAACCTGC
249051	CATCCTTTTA	TATTTTATAT	TGTGAATCCT	TATGCCATTCT	CAGAAAAGGC
249101	AAAAGGAAAT	CAAGGCTGCA	AATCTGCATG	TCCTTTGAGC	ATGTTGTGTT
249151	TTCTCAGTTT	CAAAGACTTA	GAAGCCAGCC	AGAGAGAGGA	AATCTTGCTG
249201	TTCTTTCTCT	GCACTGTGAT	ATACTGCATG	CTCAGCATAT	GGATGGCAAC
249251	TATTGGGATG	CCAAGAAGAA	TAGTTAATGA	CATTTGTCTC	CATAGAGATT
249301	ATAATGTAGA	GAAAACACAA	AACCTCAAAAT	GCAAAACGTT	AAATGACAA
249351	ATATGGTTTA	TGTAATATGA	GGTGATAAAT	AGAAAAAGTC	CCCAAAATAG
249401	AGCATGGCCA	TGAGCCAAAT	AGATGATGAG	AAGCTTAAGA	TGCAAAAGGG
249451	GAAGTTGGGA	GACCTCTGGG	AGAAGCAGGG	ACTTAGCCTT	CACCTTGGCC
249501	TTCACAGAGG	GATGTAATTT	GGAGAGGTAA	AGAAAAAGGA	GGAGAAGCTG
249551	GAGGTCAGCA	GATTTGGTGT	CTGAGTCTTG	GCCTCACTAA	TAAATGGCTG
249601	TCTAACCTTT	GACAAGTGAAT	TTTCTAAGAT	TCAGTTTCTT	TATCTATAAA
249651	ATGTCATAT	TAATTGCCAC	AGCTGGATTCT	CCAGGAAGCA	TACTCAGAGA
249701	TGGAGATTAA	TGTGTAGGAG	GAGGTTTGTG	AGGGAATCTT	CTGGAGACCA
249751	ACACCTGTAG	AAAGGAGGAG	GAAGGAAGCA	GACTGGTCAG	GGAGAAGTCA
249801	AGCTGTGACA	TGGGTCAATTA	GAGGCTCTG	CCAACCCCAT	TGGGAGTTCT
249851	GGGGCTAGAT	GGCCCTGCAG	AACCTGTGCTG	AGTTGGGACA	AGAGGGCCTT
249901	TCTAACCCCA	AGTCAATCAG	ACATTGCATG	TGGGCCACTC	TGGGAAGGGG
249951	CGGTGACTGA	ACAAGATGTT	CACCTCTGTA	TTTACCAGTA	TGAGACTTCAT
250001	CTGGATTTGC	CAGTTGTATA	CACCTTTGTCA	CATTTTTGTA	ATTTTTCTTT
250051	ATATCTATCT	ATATAATATA	TATACATATA	CACCTATAAA	TTATTATTAT
250101	TACTGATCCG	TTTGAGAATA	GATTCCATGC	TTCATGATTC	TTC AACCCTA
250151	AATATTTAA	TGAGTAGCTT	CTAAAAACAA	GAACATTCTC	TTAATATAAC
250201	CATAGATTGA	TGATTGAATT	CAGGAAATTT	CACATCAGTA	CATACTATTA
250251	TTTAACATAC	AAATCCATAT	TCAGATTTCA	TTGATTATCC	CAATAATACC
250301	CATTATAGCA	ATTGTTTTTC	TGATTTCAGGA	TACAAGCCAG	GATCACACAT
250351	TACACTCAGT	TGCTATGTCT	CTTTGGTGTA	TTTACTCTAG	AATGGTTCCT
250401	TAGTCATTCT	TCATCTTTCA	TGACACTGAC	ATTTTTGAAG	AGTGCAGGCC
250451	ATGTTGTTTT	TAAGATATCT	CTTACTGTGG	GTTTGTCTGT	TGTTTCCTCA
250501	TTATGAGCTT	CAGGTTATAC	ACTTTTGGTG	TGAGCCTACA	TAGAANAAT
250551	TGTTTGTCTT	GAACTTTTAA	ACATTTAATT	ATAGGAAGTT	TCAGCCACAT
250601	ATAAAAGTAG	TCAGAGTAGT	ATAATTTTTT	TGTAGACTAA	TCAACCCAAC
250651	CAGTTTAAAC	GTTATCACCC	ATGACCAATC	TTGTTTTTCT	ATACTTCCAC
250701	CTGTTCTCAC	ATGTTACTTT	TAAGGAAGTC	CTATTTCATCA	TATGTTATAT
250751	CCATAAGTAT	TTAAATAAAT	ATGTGAATTT	TGATCTGCTC	TTTGACACTT
250801	TCCCTTGGAT	TGCCATTAGG	CATCTCAAGC	TCAGGATTTT	CAAAACTGAA
250851	CTCCTAAATT	TCCCTACCAC	ATCTGCCCCC	TCCACAGCCT	TCCCCATTGT
250901	TACATAAGCA	AAGGCAAGAT	CTAGTTAAGA	AAGAACCTTC	CAGCTCAGTA
250951	AGTAGTGCCT	GAAGGCTTAC	TTAGTGTGTG	ACAGTTTAAG	GATATCAGGC
251001	AAATGACTTT	GTCTGCTCCT	CTATGAAGAA	GTTGGGTGGC	AACACACCTG
251051	GTGATCATGC	TGCCATCCTT	CTCCAAGTTC	TCTAAACTGG	GGGCCCTGGG
251101	GCTTTGTAAG	TATTAATATA	TGCGATGTCA	GGCATAGAGT	AGACCTTAGC
251151	ACAGTGGTCA	GAAGGGAAGA	TGCAGGGGGC	AAGCTGCTGG	GATTTATATC
251201	CCTCCTTGCC	ACTGACTAAT	ATGTGTCCTT	GGACAAGTTA	ACCAAACCTT
251251	TTGGGCTTCA	GATTTCTCAT	CTGTGAAGTG	GGACTAATAA	TGATTTTTTG
251301	CTCATAGAGT	TGTTGTTAGG	GTGAGTTTGA	ATAATGTATG	AAATGCACTA
251351	AGAATGATTT	ATGGCATAAG	GTAAGTGCTC	AGTAAATGTT	AACAACTTAG
251401	ACTCTCAATA	TATGTGTGGT	TGCTTCACTT	TGAAATCCC	CAGGCCAAGT
251451	GTCTGAAGGT	GTTGACATGT	GTTTGTGATG	TTTTATACCT	GAGGGCATTG
251501	GTAAGTGAAG	CAGCTGTTTG	TTAAGACATG	CATGTFAGTAT	CTTTTTTAGCA
251551	TGCGAAAAGT	GCTAGTGCCA	ATTTCTCTAG	AAAATGCCAT	GAAGTTGTTT
251601	AATATAAAAT	CCAGACTATT	GCCATTCTCC	AACCTGACTTC	TGGCCACAGC
251651	CACCTCTCAC	TCTTGACAGG	AGACTACTCC	ATAAATGAAA	CTCCCTACT
251701	GGTGCACAAA	CAACATCAGC	TCTCAGAAGT	TATTAGGTGG	TACTGCTCAA
251751	AGTCATTGGA	ATGTTGGCAA	AATGACAAGA	AGTCAGTGTT	GACTTCTTTT
251801	CTGACTGAGG	AATTTCCATG	TACATTTGAA	GAGTGGTTGC	TATTCATGTA
251851	TGGATAGATA	AATGATGAAT	GGATAGATGA	ATTGATGGAT	AGGTAGGTGG
251901	ATGGATGGGT	GAACGGGTGG	ATAAGTGGGC	CTTTGTGGCT	CCATGGTCTT
251951	CCTGAAACTT	CTGCTCTCAG	GAAAGGGTTT	CTGTTCAAAA	AAGTTTTTTG

252001 TTTTGTTTTG TTTTTTTTGT TTTTTTTTACA CCTCAAGCCA GATTAAATTC
252051 CAGGCCTGGC TCCATGCTCC CACTAGAAGC CAAAAAGGAG ACCCTGTGGA
252101 ATGACGGCTC GTCAGCTTTC AGCTCTGAGG AGGGCAAGGG GCCACTGTGA
252151 CTAAGACTGG TCCTTTAACT CACAGAGGCC AAGGCAATGT ACATGAAGGG
252201 CCTGCTCTAT CTAAATGAAT TATCCTCTTG GCCTCAGCTT TATACATCAA
252251 GTAAGACCAC TGGTGTCTCG TGCCTTACTA CTTAGAGTGT GGTCCCTGAC
252301 CTGCACCAGG GACATCATCT GGAAACCCGT GAGAAATGCA AACTCTCTGG
252351 CCCCCTCCCT CCTGAATCAG AATCTGAATT TTAAACTATT TAGAAATTCA
252401 TATACACATT AAAGTTTGAG ACATTTGTTA CCAGAATGTG AGTTGGAATC
252451 AGTCTTAATA AAAATCAAAT ATTATATAAA ATATATTAAT ATATTTATGT
252501 TTTAAGGCCC TAATATTTT GACTTTTAAA AATTTACTTA TGCTGGGAGT
252551 GGCAGCTCAC ACCTGTAATC CCAGCACTTT GAGAGACCAA GGAAGATTGA
252601 TCACCTGAGG TCAGGAGTTT GAGACCAGCC TAAATTACTA AAAATACAAA
252651 AATTAGCCCG GCATGGTGGC ACACGCTGTG AATCCAGCT ACTAGGGAAG
252701 GTGAGACAGG AGAATCGCTT GAACCCAGGA GACAGGTTGC AGTGAGCTGA
252751 GATCACGCCA TTGCACTCCA GACTTGGCAA CAAGAGCGAA ACTCGGTCTC
252801 AAAAAATAAA ATAAATTCAC TTATTTTCCA TTTATTTTAA TAAGGAGTAT
252851 ATAATTTACA TGCAGCAAAA CTCACCTCTT TTTATATATA GTTCTATAAA
252901 TTTTGATTGT TATACAATAA GATTCACCTT TTTTAGTAAA CAGTTCTATC
252951 AGTGTTGACA AGTGCAAATA GTCGTATAAT TATCAGCACA ATCAAGATTA
253001 TTATAGAACG GTTCTCTGTC CCCGAAAATT CCCTGTGCTC CCCCTTTGTA
253051 GTCAGCTCCT CCCACCATAC CCTGTACCTC ACAACCATGG TCTACTTTCT
253101 GTCCCTATAG TTTTTCCTTT TTATAATGTC ATATTAGTGA AATCATCACT
253151 TAGCATCATA GACCCCACTT GTAACCTGGT AGTTAGTTAT GAATATGGAT
253201 CTAGATCTAT GCATAGTCAT ATGCTAGAGC CTTGCAATTT TGAATAACTT
253251 CATTCTCCAC AGAACTGTCA CAAGGAGACT CAGGTCTGGC ATTAAAGTCA
253301 CAGGCACCTC ACTAGCAGCG GTCCCGAAGG TTTCTGTCCC CAGTAAGAGT
253351 CTGCTGTTAG AGAACTTGC TACCCAGAAA ATTTTGAGGC TGAAGTCTG
253401 GTTTCCTGTG CAGACTTGTC AGCTTTTTCG AATGGCTGGG AGGCCTTAGT
253451 TCCTGGAAAC AGTGTGAGTA GAGGGAGTCT CCTTCATCTT GCTCTATTGA
253501 GATTTCTAGG GATCAGATCC ACCTCACTAA AAAGCTCAAT AATGGAAAAG
253551 GCCTGAGAAT CTGGGGGAGC TTCTGAGCCC ACTTTTCCAA TTGGAAGTCA
253601 GGGACCTGAA AAACATCTGG GCCCTAAGAA ACAGTTTAAT GACAGGGATG
253651 GCATCATTTT CTGGTGACAT TCTCTGAATC ACCTTTGCAT TGCCAATTCA
253701 TGCAGTGAGC ACAGGAAAAA AATAATCTTT GTAGGGATAC GTGTTCTCCA
253751 CTTTAGGAAC TGCAATTACA CATATAGTAG GCTATTTGAA GTTGTCCCAC
253801 AGCTTACTGG TGCTATGCTC TTTTTTTTTA AGGCTTTTTT TTCCCTCTCT
253851 GTCTGTCAAT TTGGATAGTT TCTTTTGCTA TGTCTTAAAA TTTATTAATC
253901 TTTTCTTCTG CAATGTCTAA TCTACTGTTA ATCTCATTCA GTGTATGTTT
253951 ATAAATAGAC ATTATAAGCA GTTTGAGATT CATAGCAAAA TTGACTGGAA
254001 CATTCAAGTG ATTCTTCATC TTAGACATTA AGTTTTCATC TCTAGAAGTT
254051 TGGTTTGAGT CTTTGTGTTA CATCTTCTT GTCTCTGTTT AACATGTTCA
254101 ATATTTCTCT TATTTAACAA GTAGAGTACA GTTATACTAA TTATTTTGAT
254151 GTCTTTGACA TTGTGAGTTA AAACCTACCC TGTGTGGGTG TTGGATAATT
254201 CTGTATTCCA ATAAATAGCC GGGATCTTTG TTTTAGTTGC TTGGAAGCAG
254251 TTTGATACTT TTGGTTTTTA CTTTGTGAGT TTGTTATGTG GGACCAGGGC
254301 AGCATTTAGG CTACAGCTGG TTATTTCCCA TTAAGTGCAG AAGACCCTTC
254351 TGGTTCTCTT ATGCAATGGC TGATGAATGA CCAGGTTTAC CAGTTTGGCA
254401 AGTATGAAGG TCTGAAGAGG CACTATTTCAT GGCCCAATGT GAGCCCAAG
254451 TACTATTCTC TCTCATCCTC TCGTGTCTCT CCCTCTCTCA GCTCAGTAAT
254501 CTCCTCACAT GCACGTGCTG GTCTACACTC AGCTGAATCA CACTGTATGT
254551 GTGGGTATAC ACAGGTTTAT TGATTTCTTT TGCTTCACAT TTTTAAAC
254601 AGCTTTTGTT TTAATACTTT TGTTAATTAT GTAACATGTT TCCATGGGTC
254651 CAAAGTCAGA TCTATTAAAA GCCATATTTA ATGAAGACTA GCTTCTATCC
254701 TTGATCCCTT GCCCTATTTT CTTCCCTTCCA TGTTTAAAAA TTTCAGGGCT
254751 CATCCTTTCA TTTAAAAATA TATTCAGATA AATGAATCTC TCTCCTGCTG
254801 CTTAAGAAAT TGGTAACATA TTATATACAT TTTGTCTCTT TTATTTAGTA
254851 ATATATGCTG GAGCACAGTA GTATATGGCA ATATCTTCTA CTTCTTTTTA
254901 CAGCTTCCAA GTTCTCCTCT GTGTAGATGT ACTATTGTTT ATTCAACCTG
254951 TAACCTAATG ACGGACATAC GAGTATTTGC AGTCTTTTCG TAGTACGAAT
255001 AGTGCTGTAA TTAATAGCCT TGCACATTCA GGGTTTTTTG TTTGTTTTAT
255051 TGCCAAATGTA TCTTTGAGAT AGATTTCTAG AAGTGAGATT GCTTAGTTAG
255101 AGAATAAATG CATACATAAT TTTGGTAGGT ATTTCCAAAT GCCACTTTGC

FIGURE 3, page 81 of 141

```

255151 ATTCCCACCA GCAAAGTATG AGAGTGTGTG TTCCCCACAA AGTACGTTAT
255201 CAAACTTTTG GAGTTTATTC TGCCTGTCTG TCTGTCTGCC TATCTATCTA
255251 TCCATCCATC CATCTATTGT ATATCTACTT TTGTCTTTTA TAAATGTAGT
255301 ATTTTCATTG GTGGTCTATT TTA CTGCTT TTGGTATATT TTTTGGAAAT
255351 TAGGAAGCTA TATTTTCATG TCTTACAGCA AACACACTTG AGATTAAAGT
255401 GCACAAAATG TCCCCACATC TAAATTGGA GTGGAAGGGA AGAAACCACT
255451 TTTAGCCTCA GGTTCAGCT GAGATATCCA ACACAGCTTT CCAGAAACCT
255501 TGCTTACTGG GAGTCAAATG GTGTTGCTTG CAAAGATTAA TAAAAGCGAT
255551 ACTTTTTTTT CTCATTTAGC TATTTAGCCA GAGATTTTG TTTAAATTAT
255601 CTTAATGAGG AGTAGGGGTT TGTGGTGTTT TAAATCTCTA ATATCTAGGA
255651 GGAATCACCT TTCCAGGGCT GCTGATTTTG GTGTCATCAG TTTTAGATTA
255701 TTAATGCCCTA GAGATCAGAC ATTAGTCTGG CATTATTAAT GCCATAGAGA
255751 TCAGTGTAGT GACATGCACA TCATGCCCAA GTGGACATTG CTTCTCCTAT
255801 ATGTGGACAT TGTGTTTATA GTATTTATAG AGGAAGATGA GGGGTAAGGT
255851 GATCTTCTTC ATAGAACTGT CTCATGCCCT GGTATATTGA ATGGCTACCA
255901 CAGTGCATGC CACTGCTGAT GGTCAAAACA GGTTCCTGTA TTTTGCATC
255951 TGTGTCATAG ATGCCTGTTC TCCTCCCCAG GTCAGAGCAC AGCCCTGGTA
256001 TAGTGCTGCC GTGAGGGCTG AAGTCAACTA TTTAGAGGCT GCAGAAGGCA
256051 CAGGGATTTT CTATAAATAA CAGTGAGGTC AGACCTCATA ACTGATTCAG
256101 TCTCAGATAG CCGGTTTACA AGTTCCTGAA ATTTCTCCTT CACTTTCAAT
256151 CACAGGAATA TCTTGACAGG AAGATCTAAA CAGAACATGA GAAGTCCATG
256201 ATCTTTATG TCCTTCTTGT TAACCTGATA TATAGCTCAT GGTACAGTAG
256251 CAATCACTTG TAAAAATGAT GGTGAGACAT TAAGCACTTG CTAAAAATGT
256301 TCCTAAGATA GGGTAGTAAC ATGAAGTTA TAATCGTACC AGCTCAGATT
256351 TTGAACCTGA CCAAAGCCAT AGCAATGTTT ATATGGAGGG AAACFAACTT
256401 TCAATGCATG CCTCCTTTGT GCCAGGGAGT GTGCTAAGAC ACCTTCTGTT
256451 TCCTGAAGTT CTCACCATAT ACCTGTGAGG TCGGAGGAT TCTCCATTTT
256501 ATAGGTAAAG AGTTTGTATT TCAAGAGGTG AAGAAACCTT CCCATTGCCA
256551 TATAGCTAGT AAGTGGCAAG GCTACACTTC AAATAGAAGT GTAGTTAATT
256601 CTAAAACCA AGCTGGAAAG TACTGCCAAG ATGAGATGGG AACAGTGGGA
256651 GCTAGTGTAT GCTAAAGTCT AGATCTCATC AGGAACTCTA AAGAAGCCTC
256701 TTAATTACCA CAGGCCTTTT ATGTACCTGG CATCATGCTC TGAACCTAT
256751 TTGTTTTTCT TTGGTAGCCA TAAGTACAAA CCAACTCACC TTAGAGATGC
256801 AGAAGCTGTG ATTCAAAGAG GTTAAGTTAA ACACCCAAGA CCAAAGCTGG
256851 CTTCTAGGGT TGGTCTGTCT GCTGTCTAT TTTATGCCCT TTCACATGCT
256901 TTTCTGAATT GGCAGGTATT GGTATTTGTA TTTTGACAGC ATCTCATTCT
256951 CTGAGCTCAG GCTATTACTG TGTGTGTGTG TGTGTGTGTG TGTGTGTGTG
257001 TATCACTAGA ATGACTATT TTA CTGCTT TTAAGTTTCCA AGTGCTTTAT
257051 GAACAAAGCT CATTCTGTTT CACTGATTGA AGTAACCTT TAATGGAGAA
257101 ACAGATGCAG TGATGGTTCT TTTCTCATT CTTTTCCAAA TCTCATTGAA
257151 AAAGTGCTAG TTGTACCTCC AACATCCCT TTTTAAAATA AAAGGTCAGT
257201 ATCAGGCAGT GTTTCTGAAG AAAGTCTGA TTGAAATCAG CATTTCAATT
257251 TCAAAACAAC AAAAGTTTGT ACGTAACAAA AGCTTGGTAA TCAGCAAATA
257301 AGGGTTCCTT ACCCAAAGAG TAGTGGTTCT AAATTTATAT GTCGGTTTAA
257351 AGAGATCCTT TAAAGAGCCT GTCAGACCTC TTA CTGCT GTCTCAAGGC
257401 CTGGAAGCAA TTAATTGAAT TCTTCTTGAG AGTCTGTAG GTGTGAGGCA
257451 TTGTGCTTTG GGGCATAGAA CAAAAGACA CCTTACAACC TAGCTAGGGA
257501 AACCGGACAC CTGTAAGTGT GATTTACAAG ACTGAGGGCA AATGCCAGGA
257551 GCCACTGGAG TGGAGCCAGC ACTCTGGAAG TTCAGAGGAG GAGGCCCATC
257601 TCTTATAAAG GAGTGAGCAG ATTCATGCAC TTCTCCCTGA AATGGACCTG
257651 TTGTATTTGT TTCCCTGCTC CAGGAATGAC TTATCATCTT TCTCTGAAGC
257701 GGAGGTTTAC TAGCATAACT GTAGCCCAGA TGTGAGCCAG CTTGTCCCTG
257751 CCTCTCCAGA TCTAGGCAAC TTTGACTTAA GCCCTTAGGA CATGCCCTAT
257801 GGTAGCTCAA AGCCTTTTCT AAGACTTCTA CAAACTCTTG GGTGCTGTGA
257851 TGATCTCATC CTCTGGGCTT CTGTCTCTAT TGTCCCCATT CTGACCCATA
257901 TTGATGCAGA GTGAAAAATC TAGGCTTTTA ATTCATTTT CCAATACTC
257951 CCTGTGATGG TTAAGTGAGT GTCAACTTTA TTGGATTGAA GGATGCAAT
258001 CCAGTCAAGG GTGTGTCTGT GAGGGTGTG CCAAAGGAGA TTAACATTTG
258051 AGTCAGTGGA CTGGGAGAAG CAGACCTACC CTCAATCTGG GTGGGCACTA
258101 TCTAATCAGC TGCCAGCATG GCTAGAATAA AAGCAGGCAG AAGAACGTGG
258151 AAGGACTAGA CTGGCTGAGT CTTCTGACCT TCATCTTTCT CCCATACTGG
258201 ATGCTTCCTG CCCATCAGAC TCCAAGTTCT TCAGCTCTTG GACTCTTGGA
258251 CTTACACAAG TGTTTGTCCA GGGGCTCTCA AGCCTTCGGC CACAGACTGA

```

FIGURE 3, page 82 of 141

258301	AGGCTGCAC	GTTGCCCTCC	CTACTTTTGA	GATTTTGAGA	CTCGAACTGG
258351	CTTCCTGGCT	CCAGATGGCC	TATTGTGGAA	CTTCACCTTG	TGACTGTGTA
258401	AGTCAATCCT	CCTTAATAAA	CTCCCTTTCA	TATATACATC	TATCCTATTA
258451	GTTCTGTCCC	TCTAGAGAAC	CCTGAAAAAT	GTACTCCTAT	TCATCCAAAT
258501	CTTCTGTGAG	TACACTTGAC	TTTTTTGAAA	ATTTGAAAGC	TAGCAATAAA
258551	AGCCTCATGT	CACAAGGACA	TAAGCAACTT	CAAACTAATC	ATTAGGCATG
258601	CCTGTTCTTT	AAAAATGCTC	TTTAGCAGGT	GGGCCACTTG	GAAAGGAGGC
258651	TCTGAGATGA	TTTTCATGTG	GAAAGGTTTC	TGGGGATGGC	CAGCTCTCTG
258701	GATCCATTTA	TATAGGGGCA	AGGAAGGAAA	CAGGAGTGGG	TAGAGAGAGA
258751	AGGTGGGCTG	TGGTACCATC	TCAGCAAGGC	CTGGTCAACA	GCACAGGGTG
258801	CAC	TGAAGT	GGGATGGCCT	TGCAGAGTTC	ATTGAGGGGG
258851	GAGCCTGCG	TCTACCAAGC	ACTCACTGCA	GGAAATGACG	AAGGGCATGA
258901	GCCCTGATGA	GGCAGTCTTT	GAGCTGAGCT	CAGCTGAGGG	CAATTCTTCA
258951	AGAGGGCTGA	TGGCTGAAAT	CTGTCTCCCA	AGGGCACTCC	AAGTAGGTGG
259001	AGAATAAAAC	TTCTCTATTT	TGAAAAACAG	TCTTCATCCC	CAGCTCCATT
259051	TCAGTTTCT	GGCATCTCTC	ACTTTCCAC	GTTTCTCAAG	AGCAAAACAA
259101	ACTTTTCTCA	TGCGGGCACC	TGAGTCATTC	TTCTGCTTCT	TTACTAATAA
259151	CTATGTCCTC	AGGCTTTTAT	CTTTCTTCAC	AAAAGTCATC	CTTGCCATTT
259201	GTTTTCTAAA	TAAATTAATT	CTGTGTGTGC	ACGCATGTCT	GTGCGAGCTG
259251	ATGCTTAACA	CATTGTGACC	CTAATTCCAT	TTGCTCCATT	TCAGTAATGA
259301	TGGGAAGCAT	CAGAGAGATA	AATCGCTATA	ATGAGAACAA	TGTGGATTTT
259351	AGGACCTGAA	CAATCTGGGT	TTGCAACTTG	GCTACTTTTA	CTCTGTGGTC
259401	TTAGACAAGT	CCCTTTACTT	CTCAGAGCCT	CAGTTTCTTC	ACCTGTACAA
259451	TGGAGGAATA	ATTAATAATA	GCACATATAT	TGTATTAAG	TGGTCACCCA
259501	ATGAATACCA	TCCCTCTAC	CCCTCTTCT	TGGCCACTTC	AATTGCCATT
259551	CTGCAGGCCC	TGACTTTATG	AGTTAGTGTC	TCATTGACTA	TGAAAAATAT
259601	TGTTCTGTTA	GTTTTTTCAC	TACACAAATT	TGAAATCCTG	CTTCCAAGCA
259651	AACAATCCTA	AAGCAGACCC	ATTAGCTCTT	ATCAACTGCA	AAACAGATGG
259701	CCAGGGTTGG	GGTGTAGGGG	GCATGTGGGA	GCAGAGTTCA	AGGACTTCTT
259751	GGGCGAGTAT	TATGTTTCATA	GTGCCAAGGC	TTCTTCAGTG	TTCTAGTAGA
259801	CTCCTGTTTA	CTCTTTCTTG	TTCATGTTTC	TTTTTCTTTC	TTAGAGCTGT
259851	AAGTAAACTA	TGTTACATGT	ATTTGATTTT	CATTATGACC	ATGCCTGAAT
259901	TGTAGTAAAG	TGTACTTTTC	CCAGCTGAGG	GCTAGATATT	TTTAAACAAT
259951	TAAGCATGTT	TTATGATAAA	ATTAAATAAA	TGGATACAGC	TGTTCTTATA
260001	GTATTTTGAA	ATATCTATAT	TATATTATTC	ATTGTTGAAA	ACCTTAAACA
260051	CCACACAGTA	CTACAGGCTA	AGCAGGAAGT	TTTGTTTTTA	TTTCTCTATC
260101	ATTGAGTTTT	GCCTAATAGT	TTTCAAAATT	CCAAATTAGA	AAAAGGAAGC
260151	ATTGCAACATG	AACCTTTCAA	TTCTCAGGAT	AAACTGCCAT	ATCTGGACTT
260201	CCAATGCCTG	GGATCTCAGA	AAGGAGGCAA	GTTTACTCTG	ACAGTATGGT
260251	ATGAAGATAT	TGACAAAAAA	AATTTACAAA	GAGATTATTT	TGGATTCTTG
260301	ATAAGGTGGG	GGTAGAATCA	AGGAGTTTCA	CCTGTCTTTC	ATTAAGACCC
260351	TTGGGGTGTG	AGGGGCACAT	GCAGGTAAGT	CACCCCTTGT	CAACATGAAT
260401	GCACAAACAG	AGCGGCCAGA	AGCATCTTGG	GTAGAGTCAG	GTGCAGAATA
260451	ATGGGCAAAA	CCTTAGAAAA	ACTGGAAGAA	TATTAGAGCC	CTAGTATTGC
260501	CCACTCCATA	TGAAATAGCA	GTTTTTTTCT	GTCCATCTGT	GCCCATGGAA
260551	GCTGGACTGC	AGGGAAAGGT	AATCTCATAG	GAGCAGGCAT	GCTCTTTGGT
260601	GCAGCCAAGG	ATTGTTTCAG	AGACACAGAG	ATCCCTGCCT	CCAGAACAAAG
260651	AGGTAAAGGT	GTATCATGGG	AATGGGACCC	ATGGCCCACT	TTATCTGTTT
260701	CAAGGATGCT	CCTAAGATGT	TTCTTTGTTT	TTTTGTTTGT	TTTCAGACAA
260751	GGTCTCACTC	TGTCATCCGG	GCTGGGGTGC	AGTGGTGTGA	TCTCAGCTCA
260801	CTGCAACCTC	CGCCTCCTGG	GTTCAGACAA	TCCTCCCACT	TCAGCCTCCT
260851	GAGTAGCTGG	GATTACAGGC	ATGCGCCACC	ACGCTTGGCT	AATTTTACAA
260901	TTTTTAGTAG	AGATGGGGTT	TCGCCATGTT	GGCCAGGCTG	GTCTCGAACT
260951	CCTGACCTCA	GGTGATCCAC	CTGCCCTCGG	CTCCCAAAGT	GGTGGGATTA
261001	CAGGAGTTCG	CCACTGCGCC	CTGCCAAAGA	TCTTTGTTTC	AAGCCTACTT
261051	GTATCTAAGA	TTTTTAAGGC	CCCGGGGATA	TCTGAATTAT	AAGAGTATCT
261101	CAGAAATGCT	ATCCTCCCTC	TATCAACATG	GGAAAGGCTG	TGGATTTGAC
261151	CTACTTGCCA	CAAGTCCTTC	AACCCTCCAG	ATGCCAAGCT	GAGCCAGCCC
261201	ACCTTGGTCT	AACTCCAGAG	CATTCTGATT	TGTGCTTCTT	CGTGGCATCT
261251	CAGCCCTTGG	AGAACGCTAT	TATACCAGTA	ATATTTATGA	AGGAAGGCTG
261301	AGATTTTGGT	TTGCCTTAAG	ATTCCTCCAT	TCATCCCACT	GGTATCCCTT
261351	TCTCTGGACA	TGATATATAG	TTACATGCAT	TCCATGTCTT	TGCCATAGAA
261401	ACTATCATGA	GTTCTTTGCT	GTCCAAATAT	CATAAAAAAC	CTGGTGGCAA

```

261451 AAATTCATAT TCATAAAGGT TTGCTGGAAA GATGTGACCA CCACCAATTT
261501 CTCCCCATCT TCTAAATCTT ACTACTGAAT CCACCCATTT CATGACCATG
261551 ACATTTAAGG GGAGAGAGGT CTCCTCTGCC CACTTGCTCT CACTCCCAGT
261601 TGTGTGTCCT GAGTGTGTTT TGATTTCATG CTGTTGATTT CAATTAAGGA
261651 TATGACAAGA AATATTGTCA CCTTCTGTAT CATGCCATGT TTTCAAGTCT
261701 TCCTCCTCCA CATTGCAATG TTCTCTTTCT CTGCTGCCTT AGTATCTGGG
261751 AAGCTGTTTT TCCTGAGTAG CAGGTTTGTT TTTAATCCTA GGGTTTGAGT
261801 TGGTGAGCAT ACTGATCATC TTTTCTGCTT TGGCCACTAG GAATCATAGA
261851 ATCAAATTTA CCTCTGTCTT CGAAGATTAT ATGGTATGCA TTTCTTTCTT
261901 TCTTTTTTTT TTTTTTTTTT GAGACGGAGT TTCACTCTTG TTGCCCAGGC
261951 TGGAGTGCAA TGGGGTGATC TAGGCTCACC ACAGCCTCCG CCTCCCAGGT
262001 TCAAGCGATT CTCCTGCCTC AGCCTCCTGA GTACCTAGGA TTATAGGCAT
262051 GCACCACCGT GCCTGGCTAA TTTTGTATTT TTAGTAGAGA TGGGGTTTCT
262101 CCATGTAGGT CTGACTTGTC TCGAACTCCC GACCTCAGGT GATCCACCCG
262151 CCTTGGCCTC CCAAAGTGCT GGGATTACAG GCATGAGCCA CCGCGCCCCG
262201 CCTATATGGT ATGCATTTCT GTGTTAATCT TACTCTTAGA TTATGACTTT
262251 CCTGACTTTA TTTTCTCTCT ACCCTGATTT CAACTAATTA GTTTAAATGTT
262301 TTGTATAGTA TAATATATGT TCTTTTAGGC TTCCTCAAAT GCTTTGTGAA
262351 ATGCAAGGGT AGATAGTAAT AAATAAATTG CAGAACTATA AAACGGAGAT
262401 TAAAAACATT CCTTTCCCCT CCCAGATTAA AGCTACTCAT CAGAACTCAT
262451 CAGAAAAATC AGGTGTATTA GTCTGCTCGG GTTGCCATAA CAAAGTACCA
262501 TAACCAAGTT GCTTAAACAA CAGAAATATA TTTTCTGACA GTTTTGAAGG
262551 CTGGAAGTCC AAGATCAAGG TGCCAGCAGG TTTGGTTTCT CCTCAGGGCT
262601 CTCTCCTTAG CTTACAGATG GCTGTCTTCT TTCAGTGTTC TCATATGTCC
262651 TTTTTTCTGT GTGGACCCAC ATCCCTGGTG TCTCTGTGAG TTCAAATTTT
262701 TTCTTATAAG GACACCAGTC AGATTAGATT AGGGCCCACA ATAACAGCCT
262751 TGTTTTAACT TAATCACCTC TTTCAAGCCC TGGTCTACAA ATATACAAAT
262801 ATTCAGAGGT AATGGGAGTT AGGACTTCAA CATATGAATT TGGGGGATAC
262851 ACAGTTTCACT CTATAACATA AGGTGTTTTT ATTATCTGTG GTGGAAGGAC
262901 TTTCTTACAG GCCCTTTTCT CCCTTGGTCA TGAGGGATAG GTATGAGTGT
262951 TTGGAAGGCA CTTGCACAGA CCATGGCAGT AGCATCAAAT GCCTTCCAAA
263001 GGACCTCCAC CTGTAGAACA GAGGTGACTG ACGGGATTTG GTTTGTAACC
263051 TTTTTTGCTT AGTGTACCTT GTGACAGATA AAGAGGACAA GCCTTATGCT
263101 CTCCCATTAG AAATTTTTGT CCACTCCTGT GCCTAGGTCT CAGGTTCTAG
263151 GTGGTGTACA GTTCCAGACC TGCCAGCAGC ATCACAGCTT GTATCTCAGC
263201 AACAACCTGGT CCAGGGCACA CCTGACTTTC ACACAGATTA TTCTCAGGAT
263251 GGTCTGTTAT CACCCAGAGG TTCTTGATAA GACAAACCCA GTGCTACTGA
263301 CTTCACTATC ATGGTGCAAC ACAGCTTGGA GAAATGGGAA AAAGCAGGCC
263351 CATCTTTGCC TTACCTGTCA TCCAAAGATG GAGACAGAAC TCTGATTTCT
263401 TAACATTATC TCTGCAAGTC AAAGTGTCCA AATTCTTGAC ACCAGCAGTT
263451 AAAACACAGG GCCTTTGATT GAAGCAGACA ACTGAGTGAG TTTTCCAGGA
263501 GGTCTGAAGA AAGCCAACTC ATTATCCAGG TCTCTGAACA GACAAATAAT
263551 TATGAGACAC TGAAATGTAT TTTCCCATGC AAGTCAGAAA TGGCTCAGCC
263601 TCTGTTTTGC ACTGTTAATT ACACATTGGG GCAGAGCCCT GTTACAGTTC
263651 TTGGTCATAG ACTTACCCTT GATGCCTGGC AGCATGGGTA GGAAGCTGAG
263701 CTAATGTGTG GTCCTGACTT ACATCAAAAT GTGTGCACCC TCACCAAGTGT
263751 CAGGTCAAAA ATGAGAGGCA AGAGGAATTT CAGACATAGC AGGAGTGCCT
263801 CTGCTGTTGT ATCAGCTCGT AAGAGAAAAG AAGGCAGAAT TATTTTGCAC
263851 TGTATTTTGT CAGCAGCAAT GTTCTGATCT CAAGAAATTG TGATGTTCTC
263901 CATGGTGAAA ATCAGTGAAC TAGCTGAGAC TTGAGAGAAG CAGGGAGAAT
263951 GCAGCTTACA TAAGCCCAGG CTGCTACCCA GGTGAGGGGT TCTGTCTCCT
264001 TTGTCTCTTG CCAAAGTCAT TGTTGACTAG ACAATTGTCA ATTAGTGTTC
264051 TAGGCCAGG GATGGCCCTT GCTGCTGTCA TGCTGCCAGA CTCTCTGTGA
264101 CCCCACCCAG CACTTGATGC AGGAGGCTTG AGACAGCTTT CAACCATGCA
264151 CCTAGATTTT TACTAGTATG CCAAACCTCTG TAAGATCAGA TAACTGCCTA
264201 CTGGAAAAAT CAAGATCTTC CCTTTCTTTT TTTAAAAGGT GTCTTTAGTT
264251 TTAGGTTTAC AGCAAAATTG AGAGGAAGAT ACAGAGATTT CCCATATATC
264301 TCCTGCCCCC ACACATGCAT AACCTCCCCA TTATCAATGT CCTGCACCAA
264351 GATGGTACAT TTGTTGCAAC TGATGAACCT GCATTCATAC AGCATAATCA
264401 CCAAAGTCT ACAGTTAACT TTAAGGCTCA CTGTTGGTGT TGTACATTCT
264451 ATGGGTTTCA ACCAATGTAT AATGTCATGT ATCCATCACT ATAGTATCAT
264501 ACAGAAATAG TTTCACTACCC TAAAAATACT CTGTAATCTG CTTAGTCATC
264551 CCTCCCAACC CCTGGCAACC ACTGATCTTT TTAATGTCTC CACAGTTTTG

```

FIGURE 3, page 84 of 141

264601 CCTTTTCTGG AATGTCATAT AGTTGTAATG ATATAGTATG TGCCCCTTTT
264651 CAGTTTGGCT TCTTTCACCT AGTAATATTT AAGATTCCTC CATGTCTTTT
264701 CATGGCTTAA TAGGTTATTT CTTTTTAGCA TTGTATAATA TCCCATTGTC
264751 TGGATATACC ACAGTTTATC CATTCACTG CTGAAGGACA TCTTGGTTGC
264801 TTCCAAGTTT TGACAACTAT AAATAAAGCT GCTATAAACA TCCATGTTCA
264851 ATTCTCTCTG TGGACATATT TTCAACTCCT CTAGGTAAAT ACCAAGGAGT
264901 GTGATTACAG AATCATATGG TAAAAATATG TGCAGTTTGT TAAAAACAAA
264951 AAACAAAATA AAACAAGAAA TCCTCCAAAC TGTCTTCCAA AATGGCTGAA
265001 CCATTTTGCA TTCCCTCCAG CAATGAGTGA GAGTTCCTGT TGCTCCTCAT
265051 CCTTGTCAGC ATTTGGTGTG GTCAGTGTTC CAGATTTTAG TCATTCTAAT
265101 AAGTATGTAG TAGTATCTCA TTGTCTTAAT TTGCATTTCC CTGATGACAT
265151 ATGATATGGA ACATCTTTTC ATATGCTTAC TTGCCATCTA TATATTTTCT
265201 TTGGTGAGGT ACCTGTTAAG GCCCATTTTT TAGTTAGGTT GTTTGTTATC
265251 TTATTGTTGA GTTTTAAGAG TTCTTTGTAT ATTTTGCATA ATAGCCCCTT
265301 ATCAGATAAG TGTTTTGCAA ATATCTTCTC CCAGTATGTG GCTTGTCTTC
265351 TCATTCTCTT GACGTTGTCT TTCACAGAGC GGTCCAGATT ATCATTTCTT
265401 GCTCTCAAAA ATCATGCCTT TGTTGTATCT AAAAAGTCAT TGCCATACTC
265451 AAGGTAATCT AGGTTTTCTT TTATGTTATC TTCTAGGAGT TTTATAGTCT
265501 TGCACCTTAC ATTTAGGTCT ATGATCCATT TTGAGATAAT TCTTGTGAAG
265551 GGTGTAAGGT CTGTGCCGAG ATTCAATTAT TTGCATATGG ATGTACGGTT
265601 GTTCCAGCAC CATTTATTGA AAAGACTGTC TTTGTTTCAC TGCATTGCCT
265651 TTTGTTATCT GTCAAAGATC AATTGACTAC ATTTATGTGG GTCTATTTCT
265701 GGACTTTCTG TTCTGTTTCA TTGATCTATT TGTCTATTCT TTTGCCAATA
265751 CTACATGTCT TTGATCACTG TACCTTTATG GTAACCTTG ATGTCAGATA
265801 TTGTTAGTTT TCAAACCTTG TTTTCAATTG TGTTGACTAT TCTAAACCTT
265851 TTTTACCTCT CCATATAAAC TTTGGAATCT GTTTGTCAAC ATCCACAAAG
265901 TAACTTGCTG GGATTTTTAT TGGGATTGCT TTGCATCTAT TGATGAAGTT
265951 GGGAGGAACT AACATCTTTT TTTTTTTTTT TTTAGAGATA GAGTCTCACT
266001 CTATAGCCCA GGCTGGAGTG CAGTGGTGTG ATGATAGCTC ACTGCAGCCT
266051 CAACTCCTG GGCTCAGGTG ATCCTTCTGC CTCAGGCTCC CAAGTAGCTG
266101 AGACTACAGA GGTGTGCCAC TATGTCCAGC TAATAGAAGT AACATCTTGC
266151 CAATAATAAG TCTTGTATATC CATTAGTATA AAATCTCTCT CCATTTTTTT
266201 AGTTCTTCTT TGATTTATTT CATCAGAGAT TCATAATTTT CCTCATATAG
266251 ATCTTGATTA TATTATGTTA GATTTATACC TGTTTCATTT TGGGGGGGTG
266301 CTGATGTAAA CGGTATTATG CTTTTAATTT CAAATCCAC TTATTCATTG
266351 CTGATATATA GAAAAGTGAT TGACCTTTGT ATATTAACCT TGTATCCTGC
266401 AACCTAGCTA GAATCACTTA TTAGTTCCAG CAGTCTTTT ATCGATTTTT
266451 TTAAATTTTC TACATAGACA ATCGTGTCAT CACTGAAGGA GAACATTATT
266501 TCTTCTTTCC CAATCTTTAT ATATTTATTT CCTTTTTTAT CTGTGTGCAT
266551 TAGCTAGAAC TTCCAGTACA ATGTTGAAAA AGTGTGGTGA GAGAGAACAT
266601 TTTTGCCTTG TAACTGACAT TAGTTGAAA AGCTTTGAGT TTCTCACCTT
266651 TAAGTATGAT GTTAACTATA AGTTTTTTGT AGATATCCTT TATCAGGTTG
266701 AGGAATTTT CTTGATTTCC TAGTTTACTG AGAATTTTTA TCATGAATGG
266751 GTGTTGTATT TTGTCAAAG CTTTTGTTG TGTCTATTTA TATGATCATG
266801 TGATATTTTT ATTTTATGTC TATTGATGTA ATGAATTACA TTAATTGATT
266851 TTTGAACACT GAACTAGCCT CACTTAGAGG GGATAAATCC CACTTGGTCA
266901 TGTTGTATAA TTCTTTTAT ATATTGTTGG ATTTTATTTG CAAATATTTT
266951 GTTAAACTT TTTATGTGCA TGTTTATGAA AAATACTGGT CTGTAGTTTA
267001 ATTTTCTTAT AACATCTTTG GTTTTGGTTT TTATTTTGGT TTAGGTTGAT
267051 GGTGGTCTCA TAGAATGAGT TAGGAAATAT TCCTTCTGCT TCTATCCTCT
267101 GAAAGAGATT GTAGGGAATT GTTATAATTT CTTCCCTAAG TGTTTGGTAG
267151 AAGCAACAGT GAACCATCT GGGCCTGGTG CTTTCTGATG TGGAAGGTTA
267201 TTAATTATG ATTCAATTTA TTGAATAAAT AGTCTATTCT TGTATGAGTT
267251 TTAGCAACTT GTGTCTTCA AGGAATTGGT GCATTTTCATC TAAGTTATCA
267301 AATTTGTGGA CATAGAGTCC CTCATAGTAT TGTTTTATGA TCTCGTAAAT
267351 GTTTCTTACA TCTATAGTGA TGTCCTCTCT TTCATTTCTG ATACTAGCAA
267401 TTTGTGTTCT CTCTTTTTTT CTTAATTAGC CTGTCTAGTG GCTTAGCAAT
267451 TTTACTGATC TTTTCAAAGA ACCAGCTTTT GGTCTTCTTG ATTTTCTGTA
267501 TTGATTTCCC ATTTTAAATT CCATTGATTT CCGCTCTAAT TCTTACTTCT
267551 TTCCTTCTGC TTAATTTGAT TAAATTTGCT TTTTCTTTTT CTAAGGTAGA
267601 AACTTAGATT ATGGATTTTA TATCTTTCTT CCTTTCTAAT ATATGTATTC
267651 ACTGCTATAA ATTTTTCCT AAGCATGCT TTCACTATAT CCACAAATTT
267701 TGATAAGTTG TGTTTTCAAT TCTATTTAGT TCAAAATACG TTAAATTTTA

FIGURE 3, page 85 of 141


```

267751 TCTTGAGATT TCTTCTTTAA CCCATGTGTT ATTTAGAAGT GTGTTGTTTA
267801 ATCTCCATGT GTTTCAGGAT TTTCTAGTTA TTCTGTTATT GATTTCTAAT
267851 TTAGTTCAC TGTGGTCTGA GTGCAGACAT TGTATGATTT CTGTTTTTAA
267901 AAAAAGTCTA TGGCTTTTAT GGCCCTAAAT ATGGTCTATC TCGGTGAATA
267951 TTACATGTGA GCTTGAGAAG ATTTGTATTC TGCTGCTGTT GAATGAAGTA
268001 GTCTGTAGAT GTCAGTTTTA TCCTTTTGAT CAATGGTATT GTCAAGTTCA
268051 ACTATGTCCT TACTGATTTT CTATCTGCTG TATCTGTCTA TTTCTGAAAG
268101 AAGGATTTTG GAAGTCTCCA ATGATGATAG TGGATTTATC TATTTTTCCT
268151 TTCAGTGCTG TCAGTTTTTG CTTCATGTAT FTTGACACTC TGTTGTTAGA
268201 CACATACACA TTAAAGAACA TGTGTGTTAA GGATTGTTTT GACTTCTTAG
268251 AGAATTGACC CCTTTATTAC TATGTAATGC CTTTATTAT CCCTCATAGC
268301 TTCCCTTGCT TTGAAATCTG CTCTGTCTGA AATTATTAAG GCTCCCCTTG
268351 ATTTCTTTTA ATGAGTTTTT ACATGGTATC TTGTTCTCCA ACCAATTGCT
268401 TTTAATTGTG TCTTTATATT TAAAGTGAGT TTCTCGTAAT TAACATGTAG
268451 TTGGATCTTG TTTTTTGTTT TTTGATCCAC CCTGACAATT TCTGTCTTTT
268501 AATTGGTACA TTTAGATCAT TGATGTTCAA AGTGATTATT GATGTAGTTG
268551 GATTAATATC TACCCTATTT CTTACTGTTT TCTATTTGTT GTCTCTGTTT
268601 TTTGTTCCAT TTCTATCTTC TAGTCCTTTC TGCCTTTTTT TTAAACAGGG
268651 AAAATAAAGA TTTTAAAGGC TGATTTGAAT AGTCAGTATA GGTTGAGTAT
268701 CCCTTATCTG AAATGCTTAG GACCAGAAGT TGTTCAGAT TTGGGATTTT
268751 TTTTTTCTG GATTTGGGAA TATTTGGTTC AGCATGCCA ATCTGAAAAC
268801 CTGAAATTTG AAATGCTCCA ATGAGTATTT CTTTTGAACT TCATGGTGGT
268851 GCTCAGAAAG TGTGAGATT TTCAGCATTT TAAATTTTGG ATTTTGGAT
268901 TAGGGATACT CAACGTGTAG TACGTTATCA TGCGAATCAT GAAGGAAAAG
268951 TTAGAAATGA GTGCACATCA TATTGTGAGG CTGTAATTTT GTTATGTGTA
269001 ATTTTTTTGC ATTAACAAT TTTTAAAGCC AATTTGGTTC TAAAAACAAT
269051 AGATTGCCTT TTACATAAAG TTAATATATC TGCCCCATT CATTAACTG
269101 TTGCAAAATA CTTTATATTA TGGATACACC ATCTATTTT AACTAGTATG
269151 CTATTGATTT CTTTTTATGG TTTTAAATGA GCAGATTCCC TTATCTCTCC
269201 TTTCTAATAT CTTCAGTTATA CTTTTTTTAG TGGTTGCCCT AGAATTGGCT
269251 GTATACATTT ACAACTAATC CAAGTTTACT TTCCTTTTTA AATTAAATTT
269301 AAATTTTTTT GAGAAAGGGT CTCATCTGTT GCTGAGCTGG AGTGGAGTGG
269351 TACAATTTCA TTTCACTGCA GCCCTGACCT CCTGGGCTCA AGTGAGCCTC
269401 CTAACTCAGC CACCCTGAGT AGCTGGGACC AAAGGTGAGT GCCACCACAT
269451 CTGGCTAATT TTTGTATTTT TTGTAGAGAT AGGGTTTCAC CATGATGTCC
269501 AACCTGGTCT TGAACCTCTG AGCTCAAGCC ATTCACCTGC GTTGGCCTCC
269551 CAAATTGCTG GGATTACAGG CATGAGCCAC CACACCTGGC CCAAGTCTGC
269601 TTTCAAACAA CATTATACCA CTTCATAGGT AATGTGGGTA CCTTATAATA
269651 ACAAATAAAT CCTAATTCTC TCCTCCATCC CTTCTATAAT TACCATCACT
269701 CCATTTATAT ATAAACATAC ATAAGAAAAT ATATGTACAC ACACACATGC
269751 ACACATAAGC ATACATCATT GAGTACATTT TFACTATTAT TATTAGAACA
269801 GGTGTCTGTG TAGATTAAGA AAAATAAAAG TCTGTAAAAC CTACCTTCAT
269851 CGATTCTTTC TTCAGTGATC TTTCTTTATG TAGACCTGAG TTTCTGACCT
269901 ATGTTATTTT CCTTCATTTA ACATTTCTTG CAAGGCAGGT CTCCTAGCAA
269951 CAAATTCCTT CAATTTTGTG TTGTCTGAGA AAGTCTTTAT TTCTCCTTTA
270001 CTTTTGAAGG ATAATTTCTC AAGGAACAAA ATTCTAGGTT GGTGGGATTT
270051 TCTTTTATAA CTGTATGTAT TTCACACGAC TTTCAATTTA CTTGCATGAT
270101 TTATTTTATT TTATTTTATT ATTATTATAC TTTTAAAGTT TAGGGTACAT
270151 GTGCACAACG TGCAGGTTAG TTACATATGT GTACATGTGC CATGCTGGTG
270201 TGCTGCACCC ATTAACCTCGT CATTTAGCAT TAGGTATAGC TCCTAATGCT
270251 ATCCCTCCCC ACTCCCCCA CCCCACAACA GTCCCCAGAG TGTGATGTTT
270301 CACTTCCTGT GTCCATGGGT TCTCATTGTT CAATTCACAC CTATGAGTGA
270351 GAATATGCCG TGTTTGGTTT TTTGTTCTTG CGATAGTTTA CTGAGAATGA
270401 TGATTTCCAG TTTTATCCAT GTCCCTACAA AGGAAATGAA CTCATCATTT
270451 TTTATGGCTG CATAGTATTC ATGTGCTGAT ATGTGCCACA TTTTCTTAAT
270501 CCAGTCTATC ATTTGTTGAC ATTTGGGTTG TTTCCAAGTC TTTGCTATTG
270551 TGAATAGTGC CACAATAAAC ATACGTATAC ATGTGTCTTT ATAGCAGCAT
270601 GATTTATAGT CCTTTGGGTA TATACCCAGT AATGGGATGG CTGGGTCAAA
270651 TGGTATTTCT AGTTCTAGAT CCCTGAGGAA TCGCCACACT GACTTCACA
270701 ATGGTTGAAC TAGTTTACAG TCCCACCAAC AGTGTAAAAG TGTTCCTATT
270751 TCTCCAAATC CTCTCCAGCA TCTGTTGTTT CCTGACTTTT TAATGATTGC
270801 CATTCTAACT GGTGTGAGAT GGTATCTCAT TGTGTTTGTG ATTTGCATTT
270851 CTCTGATGGC CAGTGATGAT GAGCATTTT TCATGTGTTT TTTGGCTGCA

```

FIGURE 3, page 86 of 141

```

270901 TAAATGTCTT CTTTGTAGAA GTGTCTGTTC ATGTCCTTCA CCCACTTTTT
270951 GATGGGGTTG TTTGATTTTT TTCTTGTAAG TTTGTTTGAG TTCATTGTAG
271001 ATTCTGGATA TTAGCCCTTT GTCAGATGAG TAGGTTGCGA AAATTTTCTC
271051 CTATTTTGTA GGTTCCTGT TCACTCTGAT GGTAGTTTCT TTTGCTGTGC
271101 AGAAGCTCTT TAGTTTAATG AGATCCCAT TGTCAATTTT GGCTTTTGT
271151 GCCATTGCTT TTGGTGTTTT AGACATGAAG TCCTTGCCCA TGCCTATGTC
271201 CTGAATGGTA ATGCCTAGGT TTTCTTCTAA GGTTTTTATG GTTTCAGGTC
271251 TAATGTTTAA GTCTTTAATC CATCTTGAAT TAATTTTTGT GTAAGGTGTA
271301 AGGAAGGGAT CCAGTTTCGG CTTTCTACAT ATGGCTAGCC AGTTTTCCCA
271351 GCACCATTTA TTAAATAGGG AATCCTTTCC CCATTGCTTG TTTTCTCGG
271401 GTTTGTCAAA GATCAGATAG TTGTAGATAT GCGGTGTTAT TTCTGAGGGC
271451 TCTGTTCTGT TCCATTGATC TATATCTCTG TTTTGGTACC AGTACCATGC
271501 TGTCTTGGTT ACTGTAGCCT TGTAGTATAG TTTGAAGTCA GGTAGCCTGA
271551 TGCCTCCAGC TTTGTTCTTT TGGCTTAGGA TTGACTTGGT GATGCGGGCT
271601 CTTTTTTGGT TCCATATGAA CTTTAAAGTA GTTTTTTTCC AATTCTGTGA
271651 AGAAAGTCAT TGGTAGCTTG ATGGGGATGG CATTGAATCT ATAAATTACC
271701 TTGGGCAGTA TGGCCATTTT CACGATATTG ATTCTTCCTA CCCATGAGCA
271751 TGGAAATGTT TCCATTTCT TTGTATTCTC TTTTATTTCA TTGAGCAGTG
271801 GTTTGTAGTT CTCCTTGAAG AGGTCCTTCA CGTCCCTTGT AAGTTGGATT
271851 CCTAGGTATT TTATTCTCTT TGAAGCAATT GTGAATGGGA ATTCACTCAT
271901 GATTTGGCTC TCTGTCAGCC CAAAATCTCC TTAAGCTGAT AAGCAACTTC
271951 AGCAAAGTCT CAGGATACAA AATCAATGTA CAAAAATCAC AAGCATTCTT
272001 ATACTTGCAT GATTTCTGAG AAGTCTAATG TAATTCCTAT CTTTGTTCCCT
272051 ATATAGGCAA AATGGTTTTT CCCACTCTGG CTCTTTTCAG GATTTTTTCT
272101 TTACCTTTGA TTTTCTGTAG TTTGAAAATA ATATGCCTAG GTGGTGGTGG
272151 TGGTGGTGGT GGTGGTAATG GTGGTGGTGT TTCTTTTTGG TGTTTATCCT
272201 ACTTAGTGAT CTCTAAGCTT CCTGGATCCT ATGGGTGTGC GTCTGACATC
272251 AATTTGAGGA AATTCTCAGG CATTATTGTT TTAAATATTT CTTCTTTTCT
272301 CTCTGTTCTC CTTCTAGTAT TTTTCATGCA TCTATGTATG TATGTAGTAG
272351 TGTCTAATC GTTCTCTGTT CTCTTCTGTT TTTTTTTTTT TTTCACTCTG
272401 TGTCTCTCTT GTTTTTTCAGG TTTTGGAGGT TTCTATTAAAG ACATCCTCAA
272451 GCTCAGAGAT TTTTTCCTCA GCCATTTTGC ATCTACTAAT AAGCCCATCA
272501 AAGGCATTCT TTGTTTCTGT TACAGTATTT TTTTACACTT TTATTTTAGG
272551 CTTAGGACTA CATGTGCAGG TTTGTTATAC AGATAAATTG TGTGTAGCAA
272601 GGGTGTGATG TAAGATTATT TCATCACCCA GGTGATAAGC ATTTAATTTA
272651 TAGGTGGCTT TTGTTTTTCT TTTTGTTTGA AACAGAGCCT CACTCTATCA
272701 CCCAGGCTGA AGTACAGTGG TGCCATCTCA GCTCACTGCA ACCTCCTGGT
272751 TTCAAGTGAT TCTCATGCCT TAGCCTCCTG AGTAGCTGGG ATTACAGGTG
272801 TGTGCCATCA CAGTAACATT TTTAGTAAAG ACAGGGTTTT ACCATGATGT
272851 CCAGGCTAGT CTCGAACCTC TGGCCTCAAG TGATCCACCT GCCTCAGCCT
272901 CCCAAAAGTG CTGCAATTAC AGGCATCAGC CACCATGCCT GGCCCTTGAT
272951 AGGTAGTTTT TGATCCTTAC CCTCCTCCCA CCATCTACCT CTCAGCAGGC
273001 CTCAGTGTCT GTTGTTCCTT TCTTTGTGTT CATGTATACT CAATGTTTAG
273051 CTTCCACTTA TAAGTGAGAA CATAAGCAT TTGGTTTTCT ATTCCTGTGT
273101 TAGCTTGCTT AGGATAATGG CCTCCAGCTC CATCCATGTT ACTGCAAAGG
273151 ATATGATCTC ATTCTTTTTA TGAAGTGTA GTATTCCATG GTGTATATGT
273201 ACTACATTTT CTTTATCTAG TCTACCACTG ATGAACATTT AGGTTGATTC
273251 TATGTCTTTG CTTTTGTGAA TAGTGCTGCA ATGAACACAT GTGTTGCACT
273301 TGTCTTTATC GTAGAATGAT TTCTATTCTT TTGGATACAT ACCCAATAAT
273351 GGAATTGCTA GGATGATTGG TAGTTCTATT TTTAAGTTAT TTGAGAAATT
273401 ATCAAGTTGG TTTCCAAAAT AGCTGAACTA ATTTACATTC CCACTGGCAG
273451 TGTATAAGCA TTCCCTTTTC TCTGCATCAT CTTCAGCATC TGTATTTTTT
273501 TGACTTTTTA ATAATAGCCA TTGTGACTGG TGGGAAATGG TATCTCATTG
273551 TGGTTTTGAT ATGCATTCTT CTGAAGATTA GTGATATTGA GCATATTTCA
273601 TATGTTTGTT GGCCACATGT GTATGCTTTC TTTAAGAAG TGTCTGTTCA
273651 TATCCTTTGT ACACCTTTTA ATGGGGTTGT TGGTTTTTGT CTTGCTGATT
273701 TGTTTAAGTT CCTTATAGAT TGTGAATATT AGACCTTGTC AGATGTATAG
273751 TTTGTAAATA TTTTCTCCCA TTCTGTAGGC TGTTTGTTTA CTCTGTTGAC
273801 ATTTTCTTTT GATGTGCAGA AGCTCTTTAA TTTAATTAAG TTTCAATTTG
273851 CAATTTTGT TTTTATTGCA ATTACTTTTG TCATCTTCAT CATTAAATCT
273901 TTGCCAAGGC CTATGTGTAG AATGATATTT CCTAGATTAC CTTCCAGGAT
273951 TTTTATTGTT TTAGGTTTAA CATTTAAGTC TTTAATCCAT CTTGAGTTGA
274001 TTTTGTGATA TGGTATAAGG AAGGGGTCCA GTTCAATCT TCTGCATATG

```

FIGURE 3, page 87 of 141

274051	GCTAGCCAGT	TATCCCAACA	CCATTATTG	AATAGGAAGT	CTTTCCCCAC
274101	TGCTTGTTTT	TGTCAACTTT	GTCCAAGATC	GGATGGTTGT	AGGTGTGTGA
274151	CTTCATTCCCT	GGGCTCTCTG	TTCTGTTCCA	TTGTTCTGTG	TGTCTGTTTT
274201	TTGTACCAGT	ACATACTGTT	TTAGTTATGG	TATCCTTTTG	ATATAGTTTG
274251	AAGTCAGGTG	ATGTGATGCC	TCTAACTTTG	TTCTTTTGCT	TAAGATTGCC
274301	TTGGCTATTA	GGGCTCTATT	TAAAGTTCAT	ATGAATTTTA	AAATAGTTTT
274351	TTGTAATACT	GTGAAGAATG	TCATTATTAG	TTTGATAGGA	ATAGCATTGA
274401	ATATGTAAAT	TGCTTTGGGC	AGTATGACTG	TTTTAACAAAT	ATTGGTTCTT
274451	CCTAATCATG	AGTATGAAAT	ATTTTTTCTA	TTTGCTTGTG	TAATCTCTGA
274501	TTTCTTTGAG	CAATGTTTTG	TAATTCTCAC	TGTACAGAAT	TTTCACTCCC
274551	TGGTTAACTA	TATTTCCCAGG	TGTTTTGTTC	TTTCCGTGGC	TATTTGTGAA
274601	GAGATTGCAT	TCTTGATTGG	GGCCTCAGCT	TGGACATTGA	TGGTTTATAG
274651	AAATGCTACT	GATTTTTGTG	CATTAATTTT	GTAGGCTGAA	GCTTTGCTGA
274701	TGTCATTTAT	CAGATTTAGG	AGCTTTTGAA	TAGAGATTGT	GGGGTTTTCT
274751	AGATATTAGAC	TCATATTATC	TACAAACAGA	TAGTTTGATT	TCCTCTCCTA
274801	TTTGGATGCC	TTTTATTCTT	TTGTCTTTCT	TGATTGCCCT	GCCTAGGACT
274851	TACAGTACTT	TGTTGAATAG	AAATGGTGAG	AATGGGCATC	CTTGCTCTGT
274901	TCTGTTTCTC	AAGGGGAATG	CTACAGCTTT	TTTTTTTTGT	TCAGTATGAT
274951	GTTGGCTGTG	GGTTTGTGAG	AGATGCCTCA	TTATTTTGAG	ATATGTTCCCT
275001	TCAATGCCTA	GTTTTGTTGT	GAGGATTTTT	AACATGAACA	TATGTTGAAT
275051	TTTCTCAAAA	ATCTTTTCTT	CGTCTATTGA	GATGATCATG	TGGTTTTTGT
275101	TTTCACTTCT	GTTTTCTGTT	TGAATCACAT	TTATTGATTT	GTGATGTTGT
275151	AACCAACCTT	ACATCCCAGT	AATAAAGCCT	ACTTGATCAT	GGTGGTTTAG
275201	CTTTTTGTGT	TGCTGCTGGA	TTTGGTTTGC	TAGCATTTTA	TCCTGGATTT
275251	TTGCATCTAT	GTTTCATCAGG	GTATTGTTGT	GTCTCTGCCA	TATTTTGGTA
275301	TCAGGATGAT	GCTGCCTCA	TAGAGTGAGT	TAGGGAGGAG	TCCCTCCTCC
275351	TTAATTTTTT	GGAATAGTTT	CCATAGGAAT	GGTACCAGGT	CTTCTTTATA
275401	CATCTGGAAG	AATTCAGCTT	TGAATCTCTC	TGGTATGGGA	CTTTTCTTGT
275451	TTGGTAGGCT	TTTTATCACT	GATTCAGTTT	TGGACCTCAT	TACTGGTCTG
275501	TTTTCAAGAG	TTCATTTTCT	TCCTGGTTCA	ATGTTGGGAG	GTTGTAGATT
275551	TCTAGGAATG	TATCAGTTTC	TTCCAGGTTT	TTCAGTTTGT	GTGCATAGAT
275601	ATGTTTGTAG	TAGTCTCTGA	GGATTTTTTT	TTATTTCTAT	AGGGTTGGTG
275651	GTAATGTCCG	ATTTGTTATT	TCTAATTGTG	TTTATTTGGG	TCTTCTCATT
275701	TTTTTCTTTA	TTATTCAGC	TAGTGGTGTA	TCAGTCTTAT	TTACTCTTTT
275751	AAAAAACCAA	CTCCTGAATT	CATTAATCTT	TGTGAGGTTT	TTACATCTCT
275801	AGTTTCATTC	AGTTCAGCTC	TGATTTTGGT	TAGTTCTTGT	CTTCAGCTTT
275851	GGGGTTGGTT	TGCCCTTGT	TTTTCTAATT	CTTGTAAGTT	TGATGTTAGG
275901	TTGTTAATTT	GAGATCTAAT	TTTTTGATGT	GAACATCTAG	CACATATAAAC
275951	TTTCTCTTTA	ACACTACTTT	AGCTGTGTCT	CAGAGATTCT	GGTATGTTTT
276001	ATCTTTGTTT	CTACTAGTTT	CAAGAATAAT	CTTGATGTCT	AACTTAATGT
276051	CATTGCTTAC	CCAAAAGTCA	TTCAGGAGAA	GATTGTTTAA	TTTTCATGCA
276101	CTTATATGGT	TTTTAGAGAT	CTCCTTAGAG	ATTTCTGTTT	TTATTGTGCT
276151	GTGGACTGAG	AGCTTGGTTT	GTATGATTTT	GATTTTTTTT	CAGTTTGCTT
276201	AGAATTTGTG	TTGTGGCTGA	TTGTATGTTT	GATTTTAGAG	TATGTGCCAT
276251	TGGGCAATGA	GAGAAATGTA	TATTCGTGTT	TTTTGGGTGG	AGAGTCTCTG
276301	AGATGCTCTG	CGGGTCCTTT	TGGTCAAATG	TCAAGTTCAA	GTCTGGAATA
276351	TCTGTTTTCT	GCCTCGGTGC	TCTGTCTGAT	ACTGTCAGTG	GGGTGTTGAA
276401	GTCTCTCATT	ATTATTGTGT	GGTTATCTAA	GTCTCTTTGT	AGGTCTCTCA
276451	GAACATGGTG	CTTCTGTGTT	GGGTGCATAT	ATATTTAGGA	TAGTTAGGTC
276501	TTCTTTGTTA	ATTGAACCTT	TTACCATTAT	GTATGCCCCT	TCTTTGTCTT
276551	TTTTGATTAT	TGTGGTAAA	AAGTCTGTTT	GGTCTGAAAT	TAGAATAGTG
276601	CCCCTGCTTT	TTCTGTTTTT	CCATTTTTGT	GGCAGATTTT	TCTCATTCCC
276651	TTTACTTTGA	GCCTATGTGT	GCCATTGCAT	GTGAGATGGG	TCTTTTGAAG
276701	ACAGCATATA	GTTGGGCCCT	GCTTCTTTAT	CCAACTCGAC	ACAGTGCCTT
276751	TTAATTGTGG	CATTTGGTCT	GTTTACATTG	AAGGTTAATA	TTGATATGTG
276801	TGGACTTGAT	CCTGTCGTCA	TGTTATTAGC	TGGGGTTATT	ATATAGACTT
276851	GATTGTGTAG	TTGTPTTATA	TGTCFAACGG	TCTATGTATT	TAAGTGTGCT
276901	TTTGTGGTAG	TTGGTAACTG	TCTTTCCTTT	TCATATTTAG	CACTCCCTAA
276951	AGGACCTTTT	GTAAGGTGGG	TCTGATGGTA	ATGAATTTCC	TTAGAATTTG
277001	CTTGCTTAA	AAGGATCTCA	GGGTTTTTTG	TTGTTGTTGT	GTTTTTGTTT
277051	TTTGTCTTAT	GAAGCTTAGT	TGGCTGGGTA	TGAAATTTCT	GATTGGAATT
277101	TGTTTTCTTT	AAAAATCGTG	GATATAGGCC	CCCATATGCT	TCTGGCTTGT
277151	AGAATTTCTG	TTGAGAGGTC	TGCCATTAGC	CTGATGGGGT	TCCCTTCGTT

277201 GGTGACCTGT CCCTTCTCTC TAGCTGCCTT TAGCATTTTT TCTTTCATTT
277251 TGACCTTGGA GAATCTGAGG ACTGTGTCTT GGGGATGCTC ATCTTTGTAT
277301 AGTATCTCAC AAGGGTTCTC TGCACTTCCT GATTTTGAAT ATTGGCCTCT
277351 CTAGCAAGGT GGGGAAAATT TTTATAGACA ATATCCTTAA ATATATGTTC
277401 CAAATTGCTT GCTTCTCTC CCTCTCTTTA AGAGATGCCA GTGAGTCATA
277451 GATTTGGTCT CTTTACATAA TTCTTGCTTT CTGTCCCTCT CTTTCACATA
277501 TACCAGTGAG TCATAGATTT GGTCTCTTTA CATAATTCCA TATTTTGGGA
277551 GGTTCAATTCT TTTTATCCT TTTTCTTTA TTTTGTCTG AGTTAATTG
277601 GAGAACCAGC ATTTGAGCTT TGAAATTTTT TCCACAGCTT GGTCTATTCT
277651 GGTATTACTA TTTGCAATTG TATTATGAAA TTCTGGAAGT GAGTTTTTCA
277701 GCTCTATCAG ATCAGTTTGG TCCTTTCTTA AAATGGCCAT TTCATATTTC
277751 AGTTCCTGTA TTGTTTTATT GTATTCCTTA GATTTCTTGG ATTGGGTTTT
277801 GACTTTCTCC TGAATCTCAA TGATCTTTTC TATCCATATT CTGAATTCTA
277851 CGTCTGTCAT TTCAGCCAAG TTAAGAATCA TTGCTGGGGA ACTTGTGCAG
277901 TTATTTGGAG GTAAGAAGAC ACTCTGACTT TTTGAGTTGC CAGAGTTCTT
277951 GTGCTGGTTC TTTCTCATAT TTGTGGGCTG ATGTTCCCTC AATCTTTGAA
278001 GTTGCTTTCT TGTGGATGGG TTTTTTGCTT TTATCGTCTT TGATGCCCTT
278051 GGGAGTTTGA TTGTGGTACA GGGTGGTTTC AGGCATCTGG CTTTGTATTAT
278101 GGAATAAGCT GAGCTGTGTG CTCTAACTCT AGAGGCTGGT ACCAGTGCCT
278151 GAGCTTTGTT CTCTGGACCC TTGAGGTTAG GAACCTGCTG CACTAGGGGG
278201 GTGTTGAGGT GTTCCCGGTC TGCTAGCCAC AACATGCCAA TAGTTGGTGC
278251 TGGCCAAAGA GTTCTGTTGG GGCAATGGCA GTGGGATCTG TGTTACGCGG
278301 CACATGCCAT CAGCTGAGAC ATAGTCATGG GGTATACATG TGTGAGCTGG
278351 GGTGGAGCAC CATTGGGAAT GGAGTGATGG CATTCCCTGCA CCCACTCGTG
278401 CTGGTGGCAG TGATGGCATG GCTGGGTGGG GTGCAAGCAG GGGTGGGGTT
278451 GCCAGCATTT GTGTGTGTGC TTGTGCTGGT GGCAGCAGGG GAGGGATTTC
278501 CAACATCTGT GCATGCATTT GTGGTGGCAG CATGGTGGGG TGCCACACA
278551 TTGGTGGAGG GGGCAGTGGG GTACGCTCAC ACCAGCAGAA GCAGTGCAT
278601 GGTGTGTGCA CTGGCGGGGG AGGGAGGGAA GGTCTGTCTA CACATGCATG
278651 GCAGCCAAAC AATTGTAAGA AGGTCATTGG TGAGTGCGTG CTAACAAAAC
278701 GGCAAAGGGA AGCTTCAGGT GAGCTGGTGT GTTTTGGCAG GGGCAGGTCT
278751 GCTGGAGTTC TCCAACAGTC AACTGTGGCC TGCTGGTGAA AGAGCTATGA
278801 TGAGGGCCTC TGGGAAATAT CCTGGTGGG CATCCAAGGC TGCACTGCTA
278851 GCAGGCATGG TGAGGGTGGG GCCCCAGGAG AAGCCAGCAG ACACAGGAGT
278901 GCTCAGATTG GACTGGCCCC ATTCCACAGG CAAGATTGCC CTGCTCTGCC
278951 TAGGTCCAAC AGTCTCCCTA AGGTTAAAGT CTCCTAAAG AGCATGGTGA
279001 GCCTTGGGGA ATTGGCATGT CTTGTCCCTG GCTCCACTGC AGATGTTTCT
279051 ACACCAAACC CTCTGGCTC TGCACAGGCT GGAATCTCAC CCCGTCCACC
279101 TCTCTGAACA GTTCTCCCTG CCAGCTCAAG TGTCTTTGA GATCTGGGG
279151 TCTCCTGCTG CTAGAATTCC AGAGGTTGAT GGCAAGAGTG GGCCATTCCT
279201 CACCTATTCA ACTCACCTT TCTCAGAGTC ACTGGGGCTA GGAATGAGTC
279251 TTGGTTCTTG ACAGCCCCAC GCAGGGCTCC CAGCTTCTTC CCCTTACAGC
279301 TAAGCATCTG GTTCCTCCCT CTATCCACTC TCAATGCCTT CTCTCCAAAG
279351 ATCTGCTTGG AGTGTCCCAG TCTTCCCAGT GTCCCCGTCT CTTGATGGGA
279401 TATGTTCCCTC TTGGCTGTGT CTAGGCAGCC ATTTTGGCTT GGGCCCTTGT
279451 TTTTATCTC TAGCATTTCT TTTTGGTTCT GTCTTAGGAT TTAAGAAATC
279501 CTAAGATTTT TTATGAAATG TGTTCTTTT TTAGGATTTA AGAAATCCTA
279551 AGATTTCTGC TTATGTTGCC CATCTTTTGT TACATGCTAT CTACTTTATC
279601 CATTAGAGTT AGCATAATCA TAGTTGTTT AAATTCCCAG TCTGATAATT
279651 TCAACATCCC TGCTTGTCT TGTCTGGTA CTTTGTCTCT TCAAAGTGTG
279701 TTTTTTACCT TTTAATATGT CTTATAATTT TTGTTTTGAT AACCACCAT
279751 GTTACACTGA GTAAAACTC TGCTGTAAAT GGGCCTTAG TAATGTTGCA
279801 GTAAGTGTAG GGGGAGGAGA AGCATTCCTAC ACTCCTAGGA ATAAGTTCTC
279851 TGCTTTTAAA TGTGTCTGTG CCTCTGGCTG TGAACCTTGT AAGCCTTTCT
279901 CAGTTCTCAG TTTCTCAGGG GCAAGATGGC TAAAGTGGGC TATAGTTGGG
279951 GTATTTCCCT TCTCTCATGT TGAGTGGGCT AGAGCTGGTT ATTTTCTTTC
280001 TTCCACATGG AAGGCTAGAA CTAACCTGGAG TTGGACATTT TCTTTCACCT
280051 GGGCCAGTTA GGCTCTGATT AGTAGATTAG GCTCTGGTTA ACTAATTCT
280101 CCTAAGAGCA AGGCTTGCTA AGAAGAACAG AGCGCACTGA CATAGTTCAA
280151 AATGGTTCCCT TCTCTTTTCC CCCTACTGGA AGCATGGAGA GCTGTTTCTC
280201 CCATATTTAC TGGGATAACA TAGTCAAGCT CCTGGAGGTA TATCTCACTC
280251 AATTATGGGG ACCCTGTATA ACTGGGTTTA CCTGGAGCTT TTAACCTTCT
280301 GATTTGTCCA CACTGAGCCT CCAGGAATTC ATCAGTTACA GTTCATGTTT

FIGURE 3, page 89 of 141

280351	TCCTACCCCA	GCACTGGTCC	CCGCAATGGT	TTCTACTTGT	GAGTTTCTCT
280401	TGGTAAGCCA	TGACTCCATG	GATTTCGCTG	CCTGTGTCTC	CAATCTTGGG
280451	GGCAGAGGTT	TGCCCTGTGT	CCTCACCTCT	CTAATGGATC	CTAAAAGAGT
280501	TGTTGATTTT	TTTAAAACTC	TGTTGACGCT	TTTACTTATT	AGGAGGGAGT
280551	GATGCCTTCT	AAGTGACTTT	CATGGAATAA	GAGAAACTAG	AAGTCCCTCCA
280601	CCTTTCTTCG	TATCCTGTAC	CTCCTATTTT	GGGATTAAAA	ATAGCCTCCC
280651	AAGTTATATC	AACTTTCAAG	AAATATAAAC	CAAACCTCA	ATAAACAGT
280701	GTTAACTCTT	GTTGCCTTCA	GTATCCTTTA	CTGAGCCACT	GCGTTTGCAG
280751	AGAATAGTGC	TTACTGCTAT	AAAGTGGAGA	GAGAAATAGA	ATAGTCTTTG
280801	CCTTTGAGAG	ACTGAAAGTC	TATTTTCATT	GAAAATATAT	TTGTTCCCCA
280851	ACTCTTTGTC	AAAAGAGATT	GAAATCAAG	TTGCCAGTTG	ATGCATATGT
280901	GTAGCACATT	TTGCTGAGCA	GGGCTTAACT	CATTAGAGTT	ATCTGAGAGA
280951	CATTTATTTA	ATCCCCTTTT	ACATAAAATG	CAATATATAG	TAAGGCTAAT
281001	AACAAAGTAA	TATCTATAGA	AAGTGAAGAT	CAAAGGGAAG	GTGAGGAAGT
281051	CAGTGTGCTG	ACCATAGTTG	TTGTGTGAAT	ATATAGTTTG	AGCTTCCAGG
281101	AAGCCAGTGC	AAAAAGGGAA	AACATGATAC	AATTCTTAGT	TCTCATTTATC
281151	AAGAATTGCAA	ATGTGCTGCC	AGTTCCTCAG	GGAAGACAGA	GCTTATCATG
281201	TGATGTTTTA	TATAGAGCAT	ATTGAGCACA	GCAATATCTT	CAATAGTTCT
281251	GCATGAAC TG	CAGTGTGAAT	TTTGTAAAGG	CGGTTTCTTT	GGTGACAAAA
281301	AGCTGTTCTA	TAATGAACTA	AACTATGTAG	CCTTCCAAGG	GTCTAACGTT
281351	ATTCAGTGGT	AAAATTTCAA	GTCCCTAGAG	AATTTATAAT	CTGTTGGTTT
281401	TAATTAATAA	TAAATTTTGT	CTCTCAGCTT	TTTAAATAAT	AAAATATGTG
281451	ACACTTGAAG	AAGGAAAAAT	AACTGAAGGC	AGATTTTGAT	TTAAATTTCTC
281501	AGAGGAATAA	ATGACAGGAA	TGCCCTTGCC	TGATTTGATG	AGTATGCTTC
281551	TCTACTGTCA	TGCATTAATT	AACTGTGTTT	TGACTTTCTA	TTTTTATGGT
281601	CACCTCTTAA	TCAAGGAGTG	TTAAAGCACA	ATTACTATTA	TTGATATTCT
281651	AAGAAAGTCA	AGATGCAGAA	TAGCATCCAT	TAGTAACCTA	ACATGGAGCC
281701	TCATCAGTCT	TTAGTAAGGG	GTTCTGCTGG	TGTGGTTTGC	CTATTTCTTA
281751	GGCAGTAGAA	TCTTACCCAT	AATAGTCAAG	AAAGTCTTAA	TACAATAAAA
281801	CAGTTCCTAA	CTCAGAATTG	TCTAAAGCAG	CTCAAGGATT	TGTTGTGTGT
281851	AATCAACTTT	ACACTCTGGC	ATGAGAATAA	TTTATGAATG	CAAAAAATAGA
281901	TAAAAACAAA	TTCTGATGGC	TAAGTGAATG	GGGGCAGAGG	ACAAGAGTAA
281951	TGAAACACAA	TAAATTTACA	CCCCGTCTTT	TAAAGAAATG	GAATTTACCTT
282001	CTCACTGTAT	GACCTCTCCC	ATCTGGTCTA	CAATTTTCTC	TTTCTTATAT
282051	GGTACACATT	TTGTTGATGG	TCTTCTGCAT	GTCCCATTCT	ACTCTGAAC T
282101	AGGATAATCT	ATTCTTTGTA	ACAGAGTCCT	TTTATAATTT	GCAAAAGTTT
282151	ATACACGCAC	CTGAGGATT C	TCAAGACTCA	ATTTAAGTGT	AATTGCCATT
282201	GGATGATTT C	TATAACCTGT	GCATCATCTA	ACGCAGCTGT	CCCTGACTTT
282251	TTTGACACCA	GGAACTGGTT	TTGTGGAAGA	CAATTTTTC	AAGGATTGGG
282301	TGGGGGTAGG	TGGGGGTAGG	GTTTTCAGGAT	GAAATTTGTC	TATCTCAGAC
282351	CACCAGGTAT	TAGTTAGAA T	CTCATAAGGA	GCACGCAACC	TAGATCCCTT
282401	GCATATGCAG	TTCACCACAG	AGTTTGTGTT	CCTATGAGAA	TCTAATGCTG
282451	CCACTGGTTT	GACAGGAGGC	AGAGCTCAGG	TGGTAATGCT	CTCTCACTG
282501	CTGCTCACCT	CTGCTGTGT	GGCCCGGTT C	CTACGAGGCC	ATGGACTGGT
282551	ACTGGCCCGC	GCGCTAAGGG	TGGGGGACCC	CTGCTCGAAT	GCATGAGGTG
282601	AAATGCTTGG	TGTTACTTAA	TCCCCCAGAA	ATGCTTTCTG	CTGTTTGTTT
282651	GGCCTGTATC	ACTCTCTAAC	TTTGGGATT C	TTGTTGTCTG	TGTAAGTGT T
282701	CTAACTGCTG	TGGTCTCTGG	AAAGGCATTT	TAAAATTCAT	TTTTTCACATA
282751	CTCTTTCCTA	ATTGAATCTT	TGGGGGAAGA	AACAAAGCAA	CATAAGCTGG
282801	GCTCTGGCAT	TATTATTTGG	ATTGTTAAAA	AAAGTAATCA	TGGGCATAGA
282851	GTCATTTTCT	AGTTGAAATC	CAGGGTAAAA	TGGATCTTCT	ACTGTCAGAA
282901	GCATATATGT	CTTAAAACAA	CCTCCTCTCC	TCTACTTTCG	AGTAGCTCAG
282951	GAAGATGTT C	TCATTTAAACA	CAAGTCCCAA	ACAGTGATGT	TTTATTACGT
283001	CTCAAAATTA	CACCAAGATT	CTTTATGAAC	TGGAACATCT	GGGTACAAGA
283051	AAAATGCTTT	CTATTTTTTT	TTTTGACAAT	ATTATCTGCC	GAAGTGAAG
283101	AAATGGATGT	GAGTAAATTA	AGGAAGTGGG	TCTTTTGCCA	GACAGCTGAG
283151	AGAATTCTAT	AAATAAAAACT	ACCCTTTTGT	TCAGAAATAA	GAGGGTAAAA
283201	CATTTTATTT	TAAAAGGCAC	TTGAGCTCAG	GAGCTTGAGA	TCAACCTAGA
283251	CAGCATAGCA	AGAGTCATT C	TTACTAAAAA	TAAAAAAGAC	AAATTAATCA
283301	AGCTTGGTGG	CACATGCCTG	TAGTCCCAGC	TACTCAGGAG	GCTGAGGCAG
283351	GAGGATCGGT	TGAGCTTTGAG	AGAGTGAAGC	TGCAGTAAGC	TATGATCATG
283401	CCACTGCAC T	CGAGCTTGGG	TGAGAGAAATG	AGACCATTGT	TAAAAAAAAA
283451	AAAAA AAAAA	AAAAA AAAAA	AAAAA ACAA	CCTGTAGATA	TGATTACATG

283501 ATTTCTTAT TGCATTTTTC TATCGAAAAA AAAGACACAT GATTTAGACA
283551 GGATTCATTG GTTCACTGCC GATTCCTCCAG CACAAAGTTC AGTGCTCAAT
283601 AAATAGCTGT TGGGTGAGTG AATAGATGAA TGAATGAAAT ATGAGGTCAT
283651 AAAAAGTATT TATTCTCTAT TGTACCCCTG AGTCTCCAAA AGTTTGCTCA
283701 CTAATTTATG ATAATTCAGA TATTTGATTA TCCTAAATGG ATTGTGATTA
283751 GGCTTAAGAA AAATGGGTTT TAGGGACAGT TTTCAGGTGC CCATAGGTTT
283801 GTTTTCTCTG GACAAGATGC AAGGCTCCAG TGAGGAACTG GGTTTTAATG
283851 TGATGATTAA TACGAGGTGA TTACAGGAGA TACCTCATAG ACCTCAAAGA
283901 CTAATTTTCA GGATTAGATG CGAGATATTT TGTAAGCAAC TTCCTGATG
283951 AACGACTTAG CTATTATCTT CTAAAGATTT TTATTTTAAA AATCCCTTGC
284001 ATCTCAATTT TTCTTCTTGT TTTCTTACTT TTACTTTATA CATGACAGAT
284051 ATACTTTCAA ACTTTAAAGT GAAAAGCGAT GTCAGAGGTG CTGATATTCA
284101 CACCTTTTGA GTGTCAGCTG CAGGGAGATG TGTTTCTTGG CTGCTTCTAA
284151 AACATCTGCA GAAAAAAAT ACAGTGTGTA TCTGCACAGA AGAATGACAA
284201 ATGCAGGAAA AGACAGGAGT CACACAGCAA CATTAAATGCA GCACCTTAGG
284251 CAGTTTGCAT CACCCAGACT GTGCCCTAAA ATGAAGGTGT TTCATTTTTT
284301 AAGCTGTTGT TGTCAATACC CTTGACGGGA TGTCTGAAAA TATGCAGCCT
284351 AGTAATTGCT TCTAGCTCCA CAGCATGAGC ATCATAGACC TCCTTCCTAA
284401 GCCATGGTTA GGAGAGAAGG AAATATCTAT TGACCCTGAT AGCTATTTTC
284451 CCCTCTCATA ACTCCCTGT GGATTAGTGG GGTTCCTGGG ATCCCTCATC
284501 CTTTGCTTAA GTAAATATGT ACAGAAATAT ATCAGCTTTA GGAGATTTAG
284551 AAGCCCTGCA CTTTTTTTCA AAAAGTTTTT AAACCGATGC ATAATATTTA
284601 TACATATTTA TGGGATACAT GTGATATTTT GTTACCTGCA TTGAGTGTGT
284651 AATAAGTCAG GGTATTTAGG ATATCCATGA CCTAGAGCAT TTATCATTTT
284701 TATGTGTTGG GAACATTTCA AGTCCTCTCT TGTAAGCTATT TTGAAATATA
284751 CAATACATTG TGGTTAACTA TAGTCACCTT ACTCTGCTGT CAAACATCAG
284801 AACTTACTCC TTCTATCTAC CTGTATATTT GTATCCATTA ACCAACCTTT
284851 GTTCACCCCT CTCAACCCCA CACAAGAAAG CCCAAGACTT TTAAATCACT
284901 TCTGTGACTT ACTAGTCCTG TAGCTTTGGG CAAATTGCCT AAGTTTTCTG
284951 GGCTTCTCTT TCCTGCTCCA TTAAATGTAA AAGATCATA ATGCTGCCTA
285001 CTCTCATTTG TTTATTATGA ACCTTGAATT AAATGCAACA AAGCAAATAG
285051 AAGCACCTTG TTGTATTCTG TGGTGTGGC TTAATATTGC TGAGTGAATA
285101 ATGTTAGAAA CATGGATGAT TGTGGAAGAG CAGAAGTGT ACAGAGTGTG
285151 CTAAGGCAGC TGACGTTTGC CGCTTGGGAG TGAGACTTGA GAGCAGCACT
285201 GAAAGGAATA TGTTTGAAGA GTATAGTTCT TGCAAATATT TGTGTATGC
285251 AAATCAGTAA AATCTAGTGA TAAACATCCC AGAGAAGATA AAGATTTAGC
285301 AAAAATTGTA AACCACTGTC TGTGTTTTTA GAGAGCTGCT GAAAAATTCA
285351 ATGGAAGCCC ACAAAGTCTA GAGATATTTG AATTTATTTT TGATTTGAAA
285401 TAACTGGTTG GGTAACTGAT CTTAGGAAAA TGTTAGAACC TGCCATAGTT
285451 ACCAGGTATA TATAGAAAAG CTCGGAAGGC AACCAGGCCA CAGTCACCCA
285501 AGAAGACATG GGTTTTGTCC ATAAAATTTG AATTGTCCAA GAGAGGGCAT
285551 GTAAAGCCAA AATGGGGAAG GGTGGAGTTG GATGAGGATG TGTCATTGCC
285601 CTGAGATGTT AGGAGCACGG TTCTTTAAGT CAGGGAGACT TGGACTCCGA
285651 TTTTCTTGC CACTAAACAA TTTTATGATC TTGGGCAGGT TGCTTTACCT
285701 CTTCAAGGTT TAATTTAGTC ATCTATAAAA TGTGGATAAC AATGCCTGCT
285751 TTCCAGGGTT GAAATAATTA GATAACACGT TAAGTGATTA GCATAATGGA
285801 CTCATGGAAA GCCATGACCT TGGGGCAATG GGGGAGTGAG GGTGGGATAA
285851 TCATTGTAGA CATGAGCCCA TTTTACAGAT GAAACAAGTA TCTTCTAAGC
285901 TTCAACATAT GTACAGAGAA GACCTAGAAT CCAAATTTCC TGAGAACTAG
285951 TCCAGGCAAT TTATGTATAG TGTGGGTACC AGGGTGAGTG TGGGCTCCAG
286001 GGCTCCTTCC TCTGAGGAAT CTATTCATAG CCTGAATCTG TTTCTTTAGA
286051 AGACACTTAA TATTTATTGA ATGGTCAGTC AACTCAGCCT CATAATTGTA
286101 CCTTCTACAT CTGTAACAAA CAGCACAAAC TCAAGTTGAT CCCTACTAAT
286151 CTAGAATAGG GCCAAGGGTG ATTCAGCCAA GTTTCAGAAC CCCTAAGATG
286201 CTATGAGCA CCTGTTTCAG TAATAGTTCA AATAGGAAGG CTAAAAATTA
286251 GAGGTAAGGG AAGTAGACAA AAGTTTTTTT AAAAATTTT TTTAGTTCA
286301 GGGGTACATG TGCAGCTTTG TTATACAGGT AAACCTCGTG CGGGGGGTTT
286351 GTGTGTGAGA TTATTTTCATC ACCCCAGGTA CTAAGCCTAC TACCCAATAA
286401 TAGTTATTTT TTCCACTCCT CTTCCTCCTC CCACCCTCCA CCTTCTAGTA
286451 GGCCCCAGCG TCTGTTGTTC CCCTCTTTGG GTCCATGTGT TCTCATCATT
286501 TAGCTTCCAC TTACAAGTGA GAACATGTGA CATTGTGTTT TCTATTACTG
286551 TGTTAGTTCA CTAAGGATTA TGGCCTCCAG CTCCATCTAT ATTGCTGCAA
286601 AGGACATGAT CTCACTTTTT ACAGCTGCAT AGTATTCCAT GGTGTATATG

FIGURE 3, page 91 of 141

```

286651 TACCACATTT TCTTTATCCA TTCTACCATT GATCAGCATT GAGGTTGATT
286701 CCATGTCTGC TATTGTAAAT GGTGCTGCAG TGAATATACA CATGCATGTA
286751 TCTTTATGAT AGAATGATTT ATATTCCCTT GGTACATAC CCAAGTAATGG
286801 TATCACTGGG TCGAATGGTA GTTCTATTTT AGCTTTTTGA GGAATCTCCA
286851 CACTGCTTTC CACAATGGTT AAACATAATTT ACCTCCCACC AGCAGTGTGT
286901 AAGTGTCTC TTTTCTCTGC AACCTCACCA GGATCTGTTA TTTTTTGACT
286951 TTATAATCAC AGCCATTCTG ACTGGTGTGA GATGCTATCT CATGATGGTT
287001 TTGATTTGCA TTTCTCTAAT GATCCATGAT CTTGAGTTTT TTTTCATATG
287051 TTTGTTGGCC ACACGTATAT CTTCTTCTGA AAAGTAAGAC ATAGGAAGTT
287101 TTCACTATGT TATAGACAGA GCAACACATC TGAATATGTT CATATTACCA
287151 TGTCTCCATG CAAAATTTTG CTGTTTTTAA CCAACACAAA CAAAACAATC
287201 TTAGGAATTT TCAAGAAGGG GACTTTACAA CAAACACTGC TTTTACAACA
287251 GTAGCATTTT AGCGCAAAGT TGAATAACA GTTTTGCCCC ACAGGTTTAC
287301 ATATGAACCA AGTAGCATTT CAACATTGTG CGTTTTCCCTA ACAATAAATG
287351 AATTGGCAAT TTTTAAACT CATTTAAAAG GTTTTCAAGT TAAGGTATAT
287401 TTAATTTTCA GTACAATATA TTGGGAAATA GATGTCAGCT GCCAACTCAA
287451 TAATGCTGGC ATTTATCTCT GTAATGACAT CTAATCTCTT TGTTTAACT
287501 ATACCCAGTA TTCTGATTGG TAATCTCCAG ATTCTTCTCC AGAAATATCT
287551 CATTGCTTTC TTCCAATTTA TCCATGGAGA AAAAGAGTGT GTGTGTGTGT
287601 GTGTGTGTGT CTTGCATTAA GGAAGTTGTA GAATACTGTA ACCACAATTT
287651 TGCACCACGT TACTGTTTAT CTTCTGTGCT GTTACAGCAT CGACAGCAGG
287701 AGCTGGAGGT GGAAACTCAT GGAACAACCA TCAAGAATAC TGTGTTCTCT
287751 TGTGCTCATT TCTGATGTTT CACACAAGGA CCAGGTTGTT CCACCTGTAG
287801 CTGATTTAAT ATCAAATTGC ACAACAAATC TTTTGAGAAA ATCCTCTATG
287851 CTTAAGAATG TTACATATTG AAAAGGAATC CTACCCAGCC ATTCTCAACT
287901 TGTCATTAC CATGACATTC ACAGAACTG TAGGATAAGT CTTTTTCTCT
287951 TCCAGCTTTC CAATCTCTCT TTAGCACTTC CTATTGGCAG AGCCTACCTA
288001 GTAGGAAGCA GCTGGAAAGC TATAATAGGG TTGGCAGAGC CTTGGGCACA
288051 ACATCACAAG GTGGCATACA GAAGAGTGGG CTTGGAGCTG AGATAATAGC
288101 TGAAAACTG GCACAACCTG CCTGCCCACC ACACACAAA AACATTCTTG
288151 TGAAATATCA TGCTTCTGTG TTTCTTGCTT CACCATGAAA CTTGAGCAAT
288201 TCCTTCAGCA TCATAGGTGG AAAACAGCCT TGAATTCAGT TGTCTGGGA
288251 CAAGCCTTTC TAAGCTCCCA TACTCATGTT TTTAAAATAT ATTTTATTAC
288301 ATTATTCACT CATTATTCAA TGCCAAATAT AGCAGACAAA CAAGCTTCAA
288351 GTTAAATAGT TTAATAAGCA ACAAACAAAT AACTTATAAA TTATCTTAAG
288401 GGATGGAAAT TACTGAGGAG CTTATTATAT TTTATTTTAC TTCTTTTTTA
288451 TTGTACATAT TTAAGGTATA CAACATGATG TTTTGATACA TGTACCTTGA
288501 TATACACATA CGTAGTGAAG TAATTACTGT AGTCAAGCAA ATTAACATAT
288551 CCATCATCTC ATATAGTTTC TTTGTGTGTA TGTAATAAAA GTACCTAAAA
288601 TATACTATCT TGGCAAATTA CCAGTATACA ATATTTCTGA CTCTAGTCTT
288651 CATGTTGTAT ATTACATCTT TAGACTATTC ATCCTACCTG CAACTGTGTA
288701 TGCTTTGACT TACATCTTCC CATTTAATCC CTCCCCCAA CAGCCACCAT
288751 TCTATTCTCT GTTCTATGTC GCTGTATGCA ATCTGTTTTC TTTTTTTAGA
288801 TTCCGATCAT GCAATATTTT TCTTTCTGTG TCTGGCTTAT TTCACCTAGC
288851 ACAATGTCCT CTAAGTTCAT CCACGCTGTC ACAAGTGGCA GGATCTCCTC
288901 TTTTAAAGC TGAATAATAT TCCTGTGTGT GTGTGTGTGT GTGTGTGTGT
288951 GTGTATTCAT CCATCAGTAA ACACAGGTTG TTTCTATATC TTGCCATGCT
289001 TCTTTTTTTT TTTTCTTCAA CTTTTAAGTT CCGGGGTACA TGTGCAGGAT
289051 GTGCAGGTTT GTTACACAGG TAAACATGTG CCATGGTGGT TTGCTGCACA
289101 GATCATCCCA TCATCCAGGT ATTAAGCCCA GCATCCATTA GTTATTTTTC
289151 CTGATGCTAT CCCTCCCCCA CCAACCCCCG ACAGGCCCCA GTGTGTGTTG
289201 TTCCACCCCT GTGTCCATGT ATTCTCATTA TTCGGCTTCC ACTTGTAAGT
289251 GAGAACATGT GGTGTTTGGT TTTCTGTTCC TGTGTTAGTT TGCTGAGGAT
289301 AATAGCTTCC AACTCCATTC ATATCCCTGC AAAGGACATG ATTTTATTCC
289351 TTCTTATGGC TGCATAGTAT TCCATGGTGT ATATTTACCA CATTTTCTTT
289401 ATCCAGTCTG TTATTGATGG TATGCTTTTA TTTTTTTAGT TATCAGTACA
289451 AAGGCATAAA TATTTTATG GCTTTCTATA TATGGATATA CAAAGAAAAT
289501 TCTCAAAAGG CTATTTGTTT TGTTTCATAC ACCAGGTAGA CAGACAGTAG
289551 TTCTGTGGTT ACTATAAACA TATGATTCAA ACAGCCTAAT TTTCTGAAAA
289601 AGGAAAAAAA CATTATGCCT ATCTTATTTT CTACTTAAAC AGAACTTTTT
289651 ATTTCAAATA AAAGCATGAA TCAAGCATAA AACAACCTAA TTGCTAATCA
289701 CTGTATTTTA AAATTATCCT TAATTAGAGA AAAATCTAAA GTGAATACTG
289751 CCAATTATGA AACTTTTCTT GTGTGTCCTT AATTTGTATC TGTCACTCAT

```

FIGURE 3, page 92 of 141

289801	AAAGCTAACC	CTGCATGCCT	GTTCCCTCC	CCAGCTTTAG	AGAAACACAC
289851	AGTTTTACTC	ACATTGAACC	TATTTCTCGA	ATGCAAGTGC	CATCATCCTA
289901	GGCATGACAC	AGAAGGTACA	TTTAACAGCT	TCAGTGGGTG	ACAAAGTTCT
289951	TAAGACCTGT	GCTATTCTGA	GTGTTGTCTT	TTTGATTATA	TTTTGTAAAT
290001	GAGAATATG	GCAATTAACA	GTTTTCTTAA	GGCTCCAAGC	CTGAGCTCCT
290051	GCGTGTATTT	TGATTATGTG	GTTTTTTGCT	TTTTTGTTTT	TCTTTGTTTT
290101	TGCTTTTTTT	GTTGATACTT	TAAAAACAGT	ATCTTTATGT	CATCCTGTCC
290151	TTAGATGGAA	ACTGAGAGAG	GGAAAACTTA	GGCATGCCAG	CATCCAACAC
290201	TGTC TGGCTT	AGATCAGAGA	GGAGAAAAAT	ATTCTCTCTA	ACTTCAGCTT
290251	GCGAGTTTTT	TGAAGTTAGC	ATTTGTACTT	TCCTTGATTT	GCAAAAACCTG
290301	ATGGTAAAGA	AACATTATCA	CAGGAAGAAT	TAAATATAAA	AGCACCTGGT
290351	TCCAAGGCAT	ATAGAGAACA	TCCTAACTTT	CTGGGAATGT	ACAACCTTCA
290401	AAACTATTTT	AGTGGAACAT	GGAGAGTTTA	TAGAGGAGCT	TAAAAATGGC
290451	TTAAAATTTT	AAATGAAAGT	TGAGATGCTT	GCAAGCTTGG	ACTCAAACCTA
290501	TTTTAATGCT	GGGCCTTTAG	GCAATAATTT	CCTTTTTGTT	CATCTCATCC
290551	AATATAGAAA	ATAATGGGGT	GAGGCTTCCA	TCCTACCAGC	TGCAGTTTGT
290601	GGGCACCTCT	AGGACTGAAG	CTAAGGCAAG	CAATTGCCAC	TTAAACCTAG
290651	GACAGTGTCA	GCAGCACCAG	ATATTATGTG	AATCAAGGAA	ATGTTGAAGG
290701	ACTCTGTGAC	AGAGCTTTAG	AGATGAAACG	AATAAAATTT	GACCTGATTC
290751	CTCAATAAGG	GTTCTCTGCC	GAGTGAAAAA	CTAAGCATTG	GTATGAGTGC
290801	AGCAGCTGTT	TGGTCTGGT	GCTGGTTTTA	GCACAGTTTG	CAACTGATGG
290851	GTGAAGCAGT	AGTGATACAC	TGCTCCCCTC	CATTGCTTTC	ATCCCCCTGG
290901	TACATTTCCA	GGAGNNNNNN	NNNNNNNNNN	NNNNNNNNNN	NNNNNNNNNN
290951	NNNNNNNNNN	NNNNNNNNNN	NNNNNNNNNN	NNNNNNNNNN	NNNNNNNNNN
291001	NNNNNNNNNN	NNNNNNNNNN	NNNNNNNNNN	NNNNNNNNNN	NNNNNNNNNN
291051	NNNNNNNNNN	NNNNNNNNNN	NNNNNNNAGA	AAGAAATGCA	GAATCTTAGG
291101	CCCTACTGCA	GACCTCATTT	TTAAACAAGT	TCCCAGATG	AGAAAATCAT
291151	ATCCAACACTG	TCCGTCTCTC	TCAGTATGTC	TGACTTGCTC	CACCTGCGAC
291201	ATTTCCATGT	ATTCCAACA	GTCTGCTTCC	AACTTAAGCC	CATTTCTCTG
291251	TTTCTTCAGA	TTCTTCACTG	TCCTTCAGTC	TAATTTTTTC	TCTATCTCTT
291301	CTCCCATTAG	ATAAAATACT	AAGGTAGAAT	GATGGGAAAG	AAAGGAGGAA
291351	GAGGGGAAAG	AGGGGAAGTA	GGAAAGAAAA	ATTGAAGGAA	GGTGAAGAGG
291401	AAGAAGAGGT	GGGAAGGGAG	ATAGGGAAGG	AGGGAGAAAA	ACCTACTTCA
291451	TTTGTGCCAT	AGTATCATTG	CGGTTCTTGA	GCTCATTTTT	AATCCCAAC
291501	AAATACATAA	ACACAATAT	ATCCCATTCA	TTATTTCCAT	TTTAAATGA
291551	AGCAGTTACT	TTCATACAGA	AGAGAATGTT	AATTAGTGTG	ATAAATTGGA
291601	GAGCAATTTG	GCAACGCTG	TTCAAAATTT	TTAAGTGAAA	ATTCTCTTTA
291651	ATTCAGCAAA	TTTCAGAATT	TATGCTATAT	AAATACTTTT	ATAAATGCAC
291701	AAAACATAT	ATCAAAGGTA	TATACTTACA	GAATTTTTTT	AATAACAAA
291751	AGCTATAAAT	AGCCTAAAAG	TATCAATAAG	AGTGTTTTTG	GAAAGTCAAC
291801	ATATATCTCT	GCAAAATGCAT	ACTGTCTCTG	CATTAAAAAG	AAGTGAGAAA
291851	GATCTGCACA	CGCTTGTGTG	GTGAGCTCTC	TAGAGTATAT	TGTTAACCGA
291901	GAAAAGGAAG	ATGCAGAAAC	ATAGGCATAT	ATGATCTCAT	CCATATGTCA
291951	TTGTTTAGTA	TGCGTGTGTA	CATGTGTATA	TATATATATA	TATATTTATA
292001	AAACAGTTGA	TAATTTATAA	TATTTATATC	CAATGGCATA	TTCTATAGCC
292051	ATTACATAAA	CTATTTTGGT	AGAAATTTGA	ATAACTTAGG	ACATTTCTGG
292101	TGATGTAATG	CTAATTGAAC	TAATGTAAGC	AGGACATTAA	TATCATTTTT
292151	TATTTTTTGAC	CCACCTTTCT	TGAGCATTTT	CCAATATGAT	TAAATATTCC
292201	AAAACATCA	TTAATTTCTC	TATAATATAA	TATTTGACTC	TTGGGTTTTT
292251	GGGTTGTTTT	CAGTTTATA	ACTCATATAT	AATGTTGACA	TAAACTTTTT
292301	TTTACCTAAT	GCTATTTTCA	AATTTAGATC	TAAAGATAAT	ATCTGTAAAT
292351	TACTAGTTCA	TAGATGTGAC	CTTTTATTAT	AATTACTAGT	TCACAGGATT
292401	CTTACTTAT	GCCAAATTGA	TTTCCATACT	CCACAAAGAT	TTTTAATATA
292451	ATCAATTTTT	TCTAATGTGA	CTTGTTATTA	AAAGTCATTT	ATTTAACAAA
292501	CTTTTACATT	TGAAAGAAAA	TACTTATTTA	TGCCTACTGT	GTGCTAAGCT
292551	CCCTTTGGCAC	TCACTAGGCA	CATCATTACA	AATAAGCATG	ATTCTTACTT
292601	TACTACTCAA	AGTGTGATAT	TGGGCTGGTA	TGGGAAAAAC	AGACATTGAA
292651	ACACACAATT	ACACTGTGAT	GCAGTTCAGG	CTGTCATAGA	ATTATGCCCA
292701	GAGTGCCATA	GAGACTCAGC	ATGCTTATAG	TATGATTGTA	ATAATTAAAC
292751	AAAAAGGGAC	TACTTTGCTT	TGAAATATTC	AAATACTCTC	CCACCTTCCA
292801	ACTAGAGTGG	TGGTAACCTG	GTGGTGGGCT	TGTAGGGGAA	ATATCTTCTC
292851	TTCTTACTCC	TATCAGAGTT	TACCTGACTG	TGACAAAGGA	GTAGAAAAAG
292901	AACTTGCCCT	AATTTTTGGT	GTCAAAGTCT	AGCACCATTT	ATATCTACCC

292951 TTCTTTTACA CATGCAAAAA ATAAATCTCC TTCAAGGACA CATACATTCA
293001 TCCTGAATCT ATAAGTGAAC CTTACTTTCT AATACACTAT TCTTTATGGT
293051 GGCTTAGAAT ACAAAGATGG TTATCTAGCC TCTGAAAAA TTTTTTTTAA
293101 ATTTTCATAA AACAGTCTC CAAGTAAAA AACAAATGCA GCCTCCAGAA
293151 ACAGCACTTT CTATTTTCTT AATATTTCTT GTCAAGAAAT TCTAAACTAA
293201 AATATTCTAA TTAATCTGAA CTGTATGAAA TTGCCCATAT TTGACTTGTT
293251 TTTAACCTGT AAAAATGGCA ATTCCATATA GCTCAACATA AAACCTGTGA
293301 TTTAATTCTT TTTTTTCTTC CCCAGGATTG CCCATATGTT AGATCTTATC
293351 AAAACTGTTT TACAACAAAT AATTTCTGCA GTACCTTCCC CAGATACAAA
293401 GAAAAATAAA GAAAAATTAA ATTATTAAAC CAGGTTTATG CTTGGTTGTC
293451 ACTTTCTAGT CAGATCATCA GTAAAAATA ATTAGAATGT AGTAGTACCC
293501 AAATTAAAGA GAAATGGTT TCCTGCTTAG TTAAGCAAAG AAAATTTCTAG
293551 CCAATGCAGA ATTAGAAGTC AGGAGTAAAT GTGGACAAGG AGATCCAGCA
293601 AACTACCAAA CAACTGTGA TTCATAATCT CCATCTCATG CAAGGCTGGT
293651 GTTCTCCTCT TAAGACATAG AACAGTAGAC TAATTAATAC TAACAATGTG
293701 TTAATAATCA AAATATTAT TAATGCAAA CTGTCTCCA GAGATGGGGA
293751 AGAGGAGGGA GAGAGAGA GAGAGAGA GAAAGACAGC TGTAGCCTGA
293801 AATTGATGGT AACTCCTTCT ACAGTACCTT TACCAGATT AAACCTATAT
293851 TGTAATAAAG AAAGCTTAGT ATTTTCAGTAG AGGATGCTGT ATGGGAAACA
293901 ATGCCTCCCA GCTTAGAAAG CTGGCCTGAT CCTATAAGAA TGTCAGAATT
293951 CTATGTCAAT GCTAGTTCAT AAGGCAATCC CATTTACAAT AGCGAGACAA
294001 AAAATAAAAT ACCTGGGAAT ATATCTAACA GAGGAGGTGA AATATCTCTA
294051 CAGAGAGAAC TACAAACAC TGCTAAGAAA TCATAGATGA CACAAACAAA
294101 TACAAAAACA TTCCATATTC ATGAATTGGG AGAATCAATA TTGTTAAAA
294151 GGCAATACTA CCCAAAGCAA TCTACAGATT CAATGCTATT GCTATCAAA
294201 GACCAACAGA ATTTTTCAC AAAATTAGGA AAAAATATT ATAAATTTCA
294251 CATTGAACTA AAAAAGAGCC CAAATAGCCA AAGCAATCCT AAGCAAAAAG
294301 AACAAAGCTG GAGGCATCAC ATTACCCGGC TTCAACTGT ACTATAAGGC
294351 TACAGTAACC AAAACAGCAT GATACTGGTA CAAAAACAGA CACATAGACC
294401 AATGGAACAG AATAGAGAAC CCAGAAATA GCCTCACACC TACAGCTGTC
294451 TAATTTTGA CAAAGTCTTC CAAAAATAAG CAATGGGGAA AGGACTCCCT
294501 ATTCAATAAA TGGTGTGGG ATAGCTGGCT AGCCATAGGC AGAAGAATAA
294551 AACAGGATCC CTACCTTTTA CCATATATAA AAATTAACTA AAGATGGATT
294601 AAAGATTTAA ATGTAAGACC TCAAACGTGA AGAATTTCTAG AAGAAACCT
294651 AGGAAACACC ATTCTGGACA TCAGCCTTGG GAAATAATAT ATGAATAAGT
294701 TCTCAAAGC AATTTCAACA CAAGCAAAA CTGGACAAGT GGAACCTAAT
294751 TAAATGAAAA AGCTTCTGCA CAGCCAAAGA AACTATCAAC AGAGTAAACA
294801 GACAACCTAC AGAATGGGAG AAAATATTTG CAACTATGT AATAAAGGTC
294851 TAGTATCCAG AATCTTTAAG GAGCTTAAAT AATTAAGCAA AAAACCAAT
294901 AACCCCATTT AAAAAATGGG CAAGACATGG ACACCTCTGA AAAGAAGACA
294951 TACAAGTGGC CAAGAAACAT GAAACATGC TCAACATCAC TAAATATCAG
295001 AGAAATGGAA ATCAAAACCA CAATGAGATA CCATCTCACA TCAGTCAGAA
295051 TGGCTATTAT CAAAAAATCA AAAAAACA GAATGCTAGT AGGCTGCAGA
295101 GAAAAGCTAA GGTTTATACA CTGTTGGTGG GAATGTAAAT TAGTTCAGCC
295151 ACTGTGGAAA GCAGCTTGGG GATTTCTTAA AGAATTTAAA ACAGGAATAC
295201 CATTTGACCT AGCAATCCCA TTACTGAGTA TATATCTAAA AGAAAAACAA
295251 GTGTTCAACC AAAAAGACAC ATGCACATGT ATGTTTCATCG CAGCACTATT
295301 CACAATAGCA AAGACATGGA ATCAACCTAG GTGCTCATCA GTGGGGGACT
295351 GGATAAAGAA AATGTGGTAA ATATACACCA TGGAATATGC TGCAGCCATA
295401 AAAAAGAATG TAATCATGTC CTTTGCAGCA ACATGGATGC AGCTGGAGAC
295451 CATTATTCTA AGCAAATTAT TGTAGGAACA GAAACCAGAT ACCACATGTT
295501 GTCACCTATA GGCAATGAAG ACCACTAGAG GAGGGAGGAA GAGAAGGGGA
295551 AAGTGTTGAA AAAGTGTGA GTACTATGCT TGCTATCTGG GTGATCGGGC
295601 CATTCATATC CCAAACCTCA GCATCACACA ATATACAGTA TACCATGTA
295651 ACAACCTGC ACATGTATGC ATGCCCCAA ATCTAAAATA AAGTTGCAAT
295701 TATATTTTAA AAAAGCTAGT TCATAGTTGT AACTACTTTC TAGAGTCTTG
295751 CTACTATAAA TGTAATCACT GCTCAACATC ACTAATCATC AGAGAAATGC
295801 AAACCAGAGC CTGTGTTTCT CGAACTCTAA TGTGTATATG AAGAACTTGG
295851 GGTCTCATTA AATGCAGATT GTGATTAGTA GGTCTGAGGA GGGGTGAGAG
295901 ATTCTGCATG TCTAAGCAGC TCACATGTGA TGCAATGCTG CTGGTGGGAT
295951 CACGTTTCCT TGAGGCTTCA GCAGAGCATC CTTGTGATGG CTTGGCTCC
296001 TCTTTTCTAA ATGTTCAGTC TGACCCTGTG GGTACATAC TGAGCACTGA
296051 TGAAGAGGCC CCCGCTCCCC TTCATTGTCC TTGCTCTCTC CTTGTTTGAA

FIGURE 3, page 94 of 141

299251 TAGACAACTT TATGATAAAG TTGGAATTGT CATGAAAAGA CATTGCACAC
 299301 ATTTGTTTGT TTGTAGATTA GAAACAGAAG CTCTAATCTA CAACTCTCAG
 299351 TAGGAGAGCT GGATTTTTCT TGGCTCTAAA TTTTGGGGAA GAATTAATCA
 299401 CAAGAATCCT TATGTAATGG GTACTGAGGC ATTTTGAGTG GTGCTTCTGT
 299451 TGATTTGCTC TTGGCTGCAG CTCCTTGCTA TTCATCCATT TCACACAGCA
 299501 CCCAGAGTGA TCGTGCTGTA ACAGAATTCA AATCATATCA ACCCTCCAGA
 299551 GGCTTCCCAT TGCACCCATG GCAAAGTCAA GCCCCCTTAC CTGACCTCCA
 299601 GGCTCCCTGC TCCTGCCTGA CCATCTCACC TTGTCTCTTA CCATTCTTCT
 299651 CCTCTTAATT AGGCTCCACC CACCACAGTT GGTGACTCTT CTTCAGAGCT
 299701 TATGAGAGCT GGGCATATCC TCTTCTCTCA TTTAGGAATG CCCTTCTCCC
 299751 AAGTCTTGCG TTGTATGACT CATCTTTATG ATTCAAGTTT CCATTCAAAT
 299801 GACATTCTCG GTCCCAACCC TCAAAGAGGC TTTTCTTAAT GAGCAAAAGT
 299851 AGCCTCACCA CCACCACCTA TACTATCCCT AAACCCAAGG CAAGAGGGGT
 299901 GCTCTGGGCC CTGTGCTGTA GAGGGGTACC CTCCAGCCAC ATCCCTTCCC
 299951 ATGAAGCAGC AAGTCCATGG AGCAAAGGGG ACTTACACAC CCAGAGCTTG
 300001 CGTCTCCTCT GCTAGGTCAT GCTCTGTGCT GTGGCTTGAA TGTGACCCCT
 300051 TCAAAATTC AATGGAACCT TAATCTTCAT TGAGGTAGTA TTAAGAGATG
 300101 AGATTTTGGG AAAGTGATTA AGTCATGAGG GCAGAGCCCT CAGGAATGGA
 300151 TTAATACCTT TACAAAAGAG GTCTCAGAGA GATAATTGCC CCCTTTTGCC
 300201 CGTCTAAGCT TTCTTCCCCT CCAGAGGACA CAGCAAAAAA GTGCCATCTT
 300251 GGAAGCAGAG GGAGCAGCTC CCACCAGACA GCAAATCTGC TAGCACCTTG
 300301 ACCTGGACCT TGGACTTCCC AGCCTCCAGA ACTCTGAGAA ATAAATTTCTA
 300351 ATATTTATAA ATTACCTCTT CCATAGTATT TAAGCAGCAC AAGCAAACCTA
 300401 AGATGCCCTG CTTACCTGGG ATTCCACAAG TCTCTGCCCC GATGGCCCCA
 300451 AGCCCATTTT TACAGTCTGT GAGCCTCTGC CTTGGTTCCC TTTGTCTGTA
 300501 TTGTCAAGTT GCAGACCCCT GGAAGGCCA AGGGTGGTCA CACAGTGGCT
 300551 GTTTCAGAA GGTATGGATA AATATTAGAC ATAAGGGCTG CAGTATCATA
 300601 TGTGTACAAG AACTTCCCTT CAATGGGAGT TGGAGCCAGG CTGAGAAGAG
 300651 ACGGGCACAG GCCAGGAGAC AGGGATCAGG GACCCAAGGG CTGGCTTGCA
 300701 CAGCCCTTCC ACATCCCAGT GCAGAACTCT GAGGAGTCTG AGAATCCTGA
 300751 GTGCAAACTT GTTCTTCCAG GTGTTTGAAA AGTTGATTTG TCAAGCTAAG
 300801 AGGGTAGATC ATATTTTATT AAACAGTTTG TTAGCTTGAT TCACACTCTT
 300851 TATTTATACA TATGTGGATC TCCATTTATA CTCTTGCCGC CTCTCAGAAA
 300901 CGTTAGCAGC AGGCCTGGCT TCCTCTGCAT TTGAGTCACT CCAGAAGATG
 300951 GTGGTTCAAA TTCCAGGGCC TGGTGGTTAA AAAAAAAAAA AAAAAAGGG
 301001 GCGGGGTCTG TGCCAAATCT CTTTCTTGAC ACCCACCTTC TTGGGGATTG
 301051 CAGACTTTCT TCTCAAAGTC CTGTTCTCTA CTCTCTCTCC TATTTCCCTG
 301101 TTTTATTTT GTTCACTGA AAAAAATCTA AAATTACCTT ATTTGTTTAC
 301151 TTGTTTAATA TGAGGTCTGT GAGGTCAGAG GCTTGTGGCT ACATCTGCAG
 301201 CATGTGGCAC ATACTAAGTG CTCATTAAAA ATGTGCTTAT AGCCAAGCAT
 301251 GGTGCTCAT GCCTGTACTT CTAGTGATTT GGGGGGCCAG CATGAGAAGA
 301301 CTGCTTGAGG CTAGGAGTTT GAGACCAGCC TGGGAAACAT AGCAAGACAC
 301351 CCTGTCTCT ACAGAATTTT TTTTAAATG AGCTGGGTTG TGGTGGTGTA
 301401 TTTCTGTAGT CCCAGCTATT CTACAGACTG AGGTGGGAGG ATCACTTAAG
 301451 CCTGGGAGGT CGAGGTTGCA GCTATGATTG CACCACTGCA CTCCAGCCAG
 301501 GGTGACAGAG CAAGACCTG TTTCTAAAAA TAATATAAAT AAATAAATAA
 301551 ATAAATAATT GCTGAATGTG TCATGACAGG AATATTGTTT TAAAAATTT
 301601 GCTAAATGAA TGAATTAGGT GCTATTTTGT GCCAGGACTA TGCAGGGTAC
 301651 AAAGATAACT CAGAAAGGTC CTCTGCCTTC AAGGGTCGCC AAGCCTAGTT
 301701 GGGGAGCAAT CTTGAAAACA ACAGTCTTCT GCCTTTAGTT TTACACTTCT
 301751 GACATCATTA ATGAATCTGG AAACAAAAAT ATATATGTAG CCATTATTGT
 301801 AGCACTTCCG GGCAGACAAA CAATTTGCAA GGTAAATAAG CTGCAGGGAA
 301851 AGGGAAACAT ACTTCTGTG AGTTTCTCTA AAGGTTTAGG GATAAGAGAG
 301901 CTTTAAACT TGATGACCCA TCAGAATGGT GGAAAGTGCT TTTTCTCCCT
 301951 CTCCCTGAAG ATAAATTGCT TGTTTTCTA GGAGTGGGGG AACATGTTAA
 302001 ACGTTTCTG CTGTTAAGCT AAAATACTGT TTAGAACAGG AGGCTAAAT
 302051 CTCCTTAGCT GCTGCTGTCT GCCTTATTTA ACTTACATGG CAGACGGTGG
 302101 CATCTGCTGA ACAACACTGT GTTGGCTGCT TATCTCCTCC AAGGAGTTGA
 302151 GGGACTCTGG AGTCGTCCTC AGAGGACTCC ATGGGCAGCA GGGCAGCTGG
 302201 GGCTTCCAGC AGCTCTGGGC AGACTTCATT TTCACTCCAG ATGGCCTGGG
 302251 TGTGCAAAGT GTGAAAGAAG ACAGGCAGAA AACTGTCCC TTCTGCATAG
 302301 AATCCCTTTT TAAAAATTAA TTAAGGCTTG TGTCTAGTCA CCCAGAAATA
 302351 TAAGAGGTCA TTTTATCTA AAGATGATTG TGCAGGCCCC ATAAAGCCAA

FIGURE 3, page 96 of 141

302401 TGCATTGAA ATAATGATGA ATATATCATA AGAAATACTG AAAACTGTAC
302451 TTGTTTGGAG TTTTATCTTG AAAACAGCA GCTAAAAACC ATAAAAGTGA
302501 TTTTAGAGTT TATAAATTA GGCTATAACT TTACTATGTG CTAATTCTTA
302551 GAATAC TAGG GATGCATATA TTTTAAATA AAATTGTATG ACATCACCAT
302601 ATTCCTTCCT ATTTGACTTT CAAGACATCT ACTCATTTCAT CCAACAAATA
302651 TTTATTGAT AATTACTATG CACCAAGCAC TGTTCTAGGC AGTGGGATCA
302701 GTCAAAAAA AAAAAAGAAA ATATTTTCG TGTTTCATG GACCTTATAT
302751 TCTAATGGGT GATAAATCAT AAAATATTAG GGAAAAGCAG ATCATGCTGG
302801 AAAGTAGCAA ATACTAAGAA GAAAATACAA AAGCAGAGAT GGTGAATAAG
302851 TAGTACAGAA TATTGGTAAA GACTACAGTT TAAAGAGGGT GGTCAGAATA
302901 TGTCTCTCTG AGAAGATGAC ATGAGGGAAA AGATTGAGG GTGATGAGGA
302951 GAGAAACATA TGAATATCCA GAGAAAGAGC ATTCTAGTTA GAGGGAACAT
303001 CAAGTGCAAA TGTCTGGAG CAGGATGTGC CTAATGCGTT CAAAGAAGAG
303051 CAAGGAGCCA GTGCAGCCGG AATGGAGGGA GTGAGGGGAG GAAGGTAGGC
303101 AATCTGGAGA GATATGATTG GATATTGTAT ACCACTGGAA AGACCTTTAC
303151 TCTGAGATGA AGAGTCCAAT AGAGTTTGA GCAGGGAAGT GAAAGTAGGC
303201 TTACCGTGGC TGCTGAGCTG ACAATAGACT GTAGAGTAGT GAGGGTAGAA
303251 GCAGGAAACG AATCGAGTGG CTCCTGAAAG AATCAGGTGG GAGACAGAGT
303301 AGTAGTGGAA ATGGTGAGAA GTGTTGGGAT CCTAGTTACA TTTTAAAAAT
303351 GGAGCTGATA GGGCTTACTA ATTGATCTGA TTATGAAAGG AACTGGACTA
303401 CTAGAAATGTG AGAGAAAGAG AGGAATCAAA GATAACTCAG GTTTTGGACC
303451 TGAAAGGAA CTGAGATAAA CAGAAATGGG GAAGACTGAA TAGTATTAAG
303501 ATATTTTAGA GGAAGAGCA GGAATTTGAC AGGGCACAAT AATCTAAGA
303551 TTATTACCTA CTAGACATCC ACACAGAAGT GTCAAGTAGG TAGCTGAATA
303601 CATGAGTCTG GAGTTTAGGA GAGAAGTGAC AAGTGCATAT TTGAGAACCA
303651 ACAGTTTAAG GGAGGATTTA AAGTCATGAA ACTAGATGAC CCACCTTGGG
303701 AGAGAAATGTG GATAGAGGAC AGAAGAAGTC TAGGGATCAG GGAGATATGG
303751 AGGAACAAGC ATAGTCAAAT CAGAGAAGAT CATTTTGGGG AAAATATTGG
303801 AGGACCTTGT TAAGTTTCTT GGAGTCTTCT TCCAATTTCC TAAATTTTAA
303851 ATCATCTTAT TTGAAGAGTC TGTCATCATT GTTACTGATT TTTCAGTTTT
303901 TTGGTGATTG ACCTAATGCT CAGATCCTTT CTTATCAATG ACAGCACAAG
303951 ATTCCAACAT GGTTTTCTTC ACATAGTCCA TTTTGTGTTG CTGTAACAGA
304001 ACACCACAAT CTGAGTAATT TATAAAGAAA ATAAATTTGT TTCTCACAGT
304051 TCTGGAGGCT GGAAGTCAA ATATCAAGGT GCCAGCATCT GGTAAGGGCC
304101 ATCTTGCTAC ATCATCCCAT GGCAGAAGTC GGAAGGGCAA GAGAGAGGGG
304151 AAAAGAGAGA AGGAAGGGGG GGGGGCAAAA TCATCCTTTT ATCAGGAACC
304201 CACTCCTACA ATAACAAACC ACTCCCATAA TAACAGCATT AATCCATTCA
304251 TAAGGCAGAG CCTCAAGAC CAAATTACTT CTTACAGGTC CCACCTCTTA
304301 AACTGCTGCT AATGGGAATT AAGTTTCCAA CACATGAACC TTGGGGGACA
304351 CATTTCATGA CTATGTGACA TCCTGCATCT GCAAGTTTGT CAGTGCCATT
304401 TTAATGAAGT CAGTTTACTT TGCACCTTGA CTTTGTGTTT ACCCTGTCAC
304451 AGCTCACCGG TAACAGAACT CTTAGTGTGA TGGACAGAGA TAGAAACTAG
304501 CATTTCAGCA AGAGGCAGTT TTCAGGGTGG ACTAATTTTA TACACAACCA
304551 TTTATCAGTA GATATTTTAA AGTTCTGATG CTTTAAAAAT CCTGTGTAAT
304601 TTGGGGGCTT GAGTAATGAA TATTAGATGA TAATGACCTT CCGGGTATCC
304651 ATTAACCAAT TAGCAATGTC TCCAGTTTGT TAAGAATTAA TAGATATTAA
304701 AAATCAGAA GAGGCAGCC AAGATGGCCG AATAGGAACA GCTCTGGTCT
304751 ACACCTCCCA GCGTGAGCGA CGCAGAATAC GGGTGATTTT TGCATTTCCA
304801 TCTGAGGTAC CAGGTTTCATC TCACTAGGGA GTGCCAGACA GTGGGCGCAG
304851 GACAGTGGGT GCAGCGCACC GTGCGTGAGC CGAAGCAGGG CGAGCAAGGC
304901 ATTGCCTCAC TCGGGAAGCG CAAGGGGTCA GGGAGTTCCC TTTCCTAGTC
304951 AAAGAAAGGG GTGACAGACG GCACCTGGAA AATCGGGTCA CTCCCACCCT
305001 AATACTGCGC TTTTCCGACG GGCTTAAAAA ACGGTGCACT AGGAGATTAT
305051 ATCCCAACA TGGCTCGGAG GGTCTTACAA CCACAGAGTC TCGCTGATTG
305101 CTAGCACAGC GGTCTGAGAT CAACTGCAA GCGGCAGCG AGGCTGGGGG
305151 AGGGGCGCCT GCCATTGCCC AGGCTTGCTT AGGTAAACAA AGCAGCCGGG
305201 AAGCTTGAGC TGGGTGGAGC CCACCACAGC TCAAGGAGGC CTGCCTGCCT
305251 CTGTAGGCTC CACCTCTGGG GGCAGGGCAC AGACAAACAA AAAGACAGCA
305301 GTAACCTCTG CAGAATTAAA CGTCCCGGTC TGACAGCTTT GAAGAGAGCA
305351 GTGGTTCTCC CAGCATGCAG CTGGAGATCT GAGAACGGGC AGACTGCCTC
305401 CTCAAGTGGG TCCAGACCC CTGACCCCTG AGCAACCTAA CTGGGAGGCA
305451 CCCCCAGTA GGGGCACACT GACACCTCAC ATGGCCAGGT ACTCCTCTGA
305501 GACAAAACCT CCAGAGGAAC GATCAGACAG CAGCATTCGT GGTTCACGAA

FIGURE 3, page 97 of 141

305551 AATCCGCTGT TCTGCAGCCA CCGCTGCTGT TACCCAGGCA AACAGGGTCT
305601 GGAGTGGACC TCTAGCAAAC TCCAACAGAC CTGCAGCTGA GGGTCCTGTC
305651 TGTTAGAAGG AAAACTAACA AACAGAAAGG ACATCCACAC CAAAAACCCA
305701 TCTGTACATC ACCATCATCA AAGACCAAAA GTAGATAAAA CCACAAAGAT
305751 GGGGAAAAAA CAGAGCAGAA AAAGTGGAAA CTCTAAAAAA CAGAGCGCCT
305801 CTCCTCCTCC AAAGGAACGC AGTTCCTCAC CAGCAACGGA ACAAAGCTGG
305851 ATGGAGAATG ACTTTGACGA GCTGAGAGAA GAAGGCTTCA GATGATCAAA
305901 ATACTCCGAG CTACAGGAGG AAATTCAAAC CAAAGGCAAA GAAGTTGAAA
305951 ACTTTGAAAA AAATTTAGAC GAATGTATAA CTAGAATAAC CAATACAGAG
306001 AAGTGCTTAA AGGAGCTGAT GGAGCTGAAA GCCAAGGCTC GAGAACTGCG
306051 TGAAGAAATG AGAAGCCTCA GGAGCCGATG CAATCGACTG GAAGAAAGGG
306101 TATCAGTGAT GGAAGACTAA ATGAATGAAA CGAAGCGAGA AGGGAAGTTT
306151 AGAGAAAAAA GAATAAAAAA AAATGAACAA AGCCTCCAAG AAATATGGGA
306201 CTATGTGAAA AGACCAAATC TACGTCTGAT TGGTGTACCT GAAAGTGACG
306251 GGGAGAATGG AACCAGTTTG GAAAACACTC TGCAGGATAT TATCCAAGAG
306301 AACTTCCCCA ATCTAGCAAG GCAGGCCAAC CTTCAGATTC AGGAAATACA
306351 GAGAACACCA CAAAGATACT CCTCAAGAAG AGCAACTCCA AGACACATAA
306401 TTGTCAGATT CACCAAAGTT GAAATGAAGG AAAAAATGTT AAGGGCAGCC
306451 AGAGAGAAAG GTCGGGTAC CCACAAAGGG AAGCCCATCA GACTACCAGC
306501 GGATCTCTCG GCAGAACTC TACAAGCCAG AAGAGAGTGG GGGCCAATAT
306551 TCAACATTCT TAAAGAAAAG AATTTTCAAC CCAGAATTTT ATATCCAGCC
306601 AAACCAAGCT TCATAAGTGG AGGAGAAATA AAATACTTTA CAGACAAGCA
306651 AATGCTGAGA GATTTTGTCA CCACCAGGCC TGCCCTAAAA GAGCTCCTGA
306701 AGGAAGCACT AAACATGGAA AGGAACAACC GGTACCAGCC ACTGCAAAAT
306751 CATGCCAAAA TGTAAGACC ATCGAGGCTA GGAAGAAACT GCATCAACTA
306801 ACGAGCAAAA TCACCAGCTA ACATCATAAT GACAGGATCA AATTCACACA
306851 TAACAATATT AACTTTAAAT GTAAATGGAC TAAATGCTCC AATTAAAAGA
306901 CACAGACTGG CAAATTGGAT AAAGAGTCAA GACCCATCAG TGTGCTGTAT
306951 TCAGGAAACC CATCTCATGT GCTGAGACAC ACATAGGCTC AAAATAAAAG
307001 GATGGAGGAA GACTCTAGCA GCAAATGGAG AACAAAAGAA GGCAGGGGTT
307051 GCAATCCTAG TCTCTGATAA AACAGACTTT AAACCAACAA AGATCAAAAG
307101 AGACCAAGAA GGCCATTACA TAATGGTAAA GGGATCAATT CAACAAGAAA
307151 AGCTAACTAT CCTAAATGTA TATGCATCCA ATACAGGAGC ACCCAGATTC
307201 ATAAAGCAAG TCCTGAGTGA CCTACAGAGA GACTTAGACT CCCACACAAT
307251 AATAATGGGA GACTTTAACA CCCCCTGTC AACATTAGAC AGATCAATGA
307301 GACAGAAAGT TAACAAGGAT ATCCAGGAAT TGAATCAGC TCTGCACCAA
307351 GTGGACCTAA TAGACATCTA CAGAACTCTC CATCCCAAAT CAACAGAATA
307401 TACATTTTTT TAGCACACC ACCACACCTA TTCCAAAATT GACCACATAG
307451 TTGGAAGTAA AGCTCTCCTC AGCAAATGTA AAAGAACAGA AATTATAACA
307501 ACTGTCTCTC AGACCACAGT GCAATCAAAC TAGATCTCAG CATTAAAGAAA
307551 CCACTCAAAA ACTGCTCAAC TACATGGAAA CTGAACAACC TGCTCCTGAA
307601 TGACTACTGG GTACATAATG AAATGAAGGC AGAAATAAAG ATGTTCTTTG
307651 AAACCAATGA GAACAAAGAC ACAACATACC AGAATCTCTG GGACACATTC
307701 AAAGCAGTGT TAGAGGGGAA ATTTATAGCA CTAATGCCC ACAAGAGAAA
307751 GCAGGAAAGA TCCAAAATTG ACACCCTAAC ATCACAATTA AAAGAACTAG
307801 AAAAGCAAGA GCAAACACAT TCAAAAGCTA GCAGAAGGCA AGAAATAACT
307851 AAAATCAGAG CAGAACTGAA GGAAATAGAG ACACAAAAAA CCCTTCAAAA
307901 AATTAATGAA TCCAGGAGCT GGTTTTTTTG AAAGGATCAA CAAAATTGAT
307951 AGACCGCTAG CAAGATTAAT AAAGAAAAAA AGGGAGAAGA ATCAAATAGA
308001 CACAATACAA AATGATAAAG GGGATATCAC CACTGATCCC ACAGAAATAC
308051 AAATTACCAT CAGAGAATAC TACAAACACC TCTACGCAAA TAACTAGAA
308101 AATCTAGAAG AAATGGATAA ATTCCTTGAC CCATACACCT TCCAAGACT
308151 AAACCAGGAA GAAGTTCAAT CTCTGAATAG ACCAATAACA GGATCTGAAA
308201 TTGTGGCAAT AATCAATAAC TTACCAACCA AAAAGAGTCC GGGACCAGAT
308251 GGATTCACAG CCGAATTCTA CCAGAGGTAC AAGGAGGAAC TGGTGCCATT
308301 CCTTCTGAAA CTATTCCAAT CAATAGAAAA AGAGGGAATC CTCCCTAACT
308351 CATTTTATGA GGCCAGCATC ATCCTGATAC CAAAGCCTGG CAGAGACACA
308401 ACCAAAAAAG AGAATTTAAG ACCAATATCC TTGATGAACA TTGATGCAAA
308451 AATCCTCAAT AAAATACTGG CAAACCAAAT CCAGCAGCAC ATCAAAAAGC
308501 TTATCCACCA TGATCAAGTG GGCTCATCCC TGGGATGCAA GGCTGGTTCA
308551 ATATATGCAA ATCAATAAAT GTAATCCAGC ATATAAATGG AACCAAAGAC
308601 AAAAACCACA TGATTATCTC AATAGATGCA GAAAAGGCTT TTGACAAAAT
308651 TCAACAACCT TCATGCTAAA AACTCTCAAT AAATTAGGTA TTGATGGGAC

FIGURE 3, page 98 of 141

```

308701 ATATCTCAAA ATAATAAGAG CTATCTATGA CAAACTCACA GCCAATATCA
308751 TACTGAATGG GCAAAAACCTG GAAGCATTCC CTTTGAAAAC TGGCACAAGC
308801 CAGGGATGCC CTCTCTCACC ACTCCTATTC AACATAGTGT TGGACGTTCT
308851 GGCCAGGGCA ATTAGGCAGC AGAAGGAAAT AAAGGGTATT CAATTAGGAA
308901 AAGAAGAAGT CAAATTGTCC CTGTTGTCAG ATGACATGAT TGTATATCTA
308951 GAAAACCCCA CTGTCTCAGC CCAAAATCTC CTTAAGCTGA TAAGCAACTT
309001 CAGCAAAGTC TCAGGATAGA AAATCAATGT GCAAAAATCA CAAGCATTCT
309051 TATACATCAA TAACAGACAA ACAGAGAGCC AAATCATGAG TGAACCTCCA
309101 TTCACAATTG CTTCAAAGAG AATAAAATAC CTAGGAATCC AACTTACAAG
309151 GGATGTGAAG GACCTCTTCA AGGAGAACTA CAAACCACTG CTCAATGAAA
309201 TAAAAGAGGA TACAAAGAAA TGGAGAACA TTCCATGCTC ATGGGTAGGA
309251 AGAATCAATA TCATGAAAAC GGCCATGCTG CCCAAGGCAA TTTATAGATT
309301 CAATGCCATC CCCATCAAGC TACCAATGAC TTTCTTCACA GAATTGGAAA
309351 AAACACTTTT AAAGTTCATA TGGAAACAAA AAAGAGCCCG CATCACCAG
309401 TCAATCCTAA GCCAAAAGAA CAAAGCTGGA GGCAATCACGC TACCTGACTT
309451 CAACTATAC TACAAGGTTA CAGTAACCAA AACAGCATGG TACTGGTACC
309501 AAACAGAGAT ATAGATCAAT GGAACAGAAC AGAGCCCTCA GAAATAACGC
309551 CGCATTCTA CAACTATCTG ATCTTTGACA AACCTGAGAA AAACAAGCAA
309601 TGGAGAAAGA ATTCCCTATT TCATAAATGG TGCTGGGAAA ACTGGCTAGC
309651 CATATATAGA AAGCCGAAAC TGGATCCCTT CCTTACACCT TATACAAAAA
309701 TTAATTCAGG ATGGTTTAAA GACTTAAACA TTAGACCTGA AACCATAAAA
309751 ACCCTAGAAG AAAACCTAGG TATTACCATT CAGGACATAG GCGTGGGCAA
309801 GGACTTCATG TCTAAAACAC CAAAAGCAAT GGCAACAAAA GCCAAAATTG
309851 ACAAATGGGA TCTCATTAAG CTAAAGAGCT TCTGCACAGC AAAAGAAACT
309901 ACTATCAGAG TGAACAGGCA ACCTACAAAA TAGGAGAAAA TTTTCGCAAC
309951 TFACTCATTT GACAAAGGGC TAATATCCAG AATCTACAAT GAACTCAAAC
310001 AAATTTACAA GAAAAAACA ACCGCATCAA AAAGTGGGTG AAGGACATGA
310051 ACAGACACTT CTCAAAAGAA GACATTTATG CAGCCAAAAG ACACATGTAA
310101 AAATGCTCAT CATCACTGGC CATCAGAGAA ATGCCAAATCA AAACCACAAT
310151 GAGATACCAT CTCACACCGA TTAGAATGGC AATCATTAAG AAGTCAGGAA
310201 ACAACAGGTG CTGGAGAGGA TGTGGAGAAA TAGGAACACT TTTACATGT
310251 TGGTGGGACT GTAAACTAGT TCAACCATTG TGGAACTCAG TGTGGCAATT
310301 CCTCAGGCAT CTAGAACTAG AAATACCATT TGACCCAGCC ATCCCATTAC
310351 TGGGTATATA CCCAAAGGAC TATAAATCAT GCTGCTATAA AGACACATGC
310401 ACACGTATGT TTATTGTGGC ACTATTACAA ATAGCAAAGA CTTGGAACCC
310451 ACTCAAATGT CCAACAATGA TAGACTGGAT TAAGAAAATG TGGCACATAT
310501 ACACCATGGA ATACTATGCA GCCATAAAAA ATGATGAGTT CATGTCCTTT
310551 GTAGGGACAT GGTGTGAATT GGAAATCATC ATTCTCAGTA AACTATCGCA
310601 ACGACAAAAC ACCAAACACC GCATGTTCTC ACTCATAGGT GGGAAATTGAA
310651 CAATGAGAAC ACATGGACAC AGGAAGGGGA ACATCACACT CTGGGGACTG
310701 TTGTGGGGTG GGGGGAGTGG GGAGGGATAG CATTAGGAGC TATACCTAAT
310751 GCTAAATGAC GAGTTAATGG GTGCAGCACA CCAGCATGGC ACATGTATAC
310801 ATATGTAAC TAACTGCACA TTGTGCACAT GTACCCTAAA ACTTAAAGTA
310851 TAATAATAAT AAAATTTAAA ATAATAAATA AATAAAAAATA AATAAAAAATA
310901 AAAATCAGCT TAGAAATTGT TCCAGAAGTT AATGTCTTCA TTTATAAAGG
310951 AAGACAGTGA CTGGCCTACA GAACTGAGTG ACTAGACTGC ACAGCTAGCT
311001 AGGAGCAAAG CCTGAATGAG AATCAATCTG AACCCCCCTT CCATGTAGTG
311051 CCATTTAGTG GTTAAGATAC TTAACATCTG TGCCTCAGTT TCTTCAACTG
311101 TGAACAGGA GTTATATCGC ATACCTCATA TGATTGTGTA AATAACACAT
311151 TAAAAAATAG ATATCAAGTG CTTGGCATAA ATTTTTTTTC TTTTTTTGTG
311201 AAACGGAGTC TTGCTCTGTC ACCCAGGCTG GAGGGCAGTG GCGTGATCTC
311251 AGGTCACTGC AGTGGCACGA TCTTGGCTCA CTGCAGCCTC CACCTCCTGG
311301 GTTCAAGCAA TTTTCTTGCC TCAGCCTCCC GAGTAGCTGG GACTACAGGC
311351 ACACGCCGCC ATGCCCGGCT TATTTTGTGA TTTTGTAGTAG AGACGGGGTT
311401 TCACCATATT GGCCAGGATG GTCTTGATCT CCTGCCCTCG TGATCCACTG
311451 GCCTCGGCCT CCCAAGTGT TGGGATTACA GGCAATGAGC ACGGCCCCCA
311501 GCTGGTTTTT TTTTTTTTTT TTTTTTTTTT AATACTAAGT CTGGCAAGGA
311551 TATGGAGCAA CTAAGACTGT CATACACTGC TGGTGGGAAT GCAAAATGGA
311601 ACATCTGCTT TGGAAAACAG TTGAGTGGTT TCTTCACACT TGATCTTCAC
311651 CAAACGGCTG AGAAGCAATA AGCAGTTTCT TATAAAGTTA AATATACACT
311701 TACCATACAA CCCAGAAATT CCACTCCTAG GTATTATATCC AAGTCAAGTG
311751 AAAATATATG TCCACACAAA AACCTACATA TGAATACATA TAGCAACTTT
311801 ATTCACAATC TTCAAAAACCT AGGAACAACC CAAATATTGG TCAGCTATGA

```

FIGURE 3, page 99 of 141

```

311851 ATGGATAAAC CAACTGCAGC ACATCCGTAC AGTGAAACAC TGATCAGCAA
311901 TAAAAGGAAC AAATTATAAT ACACACAGCA GTTTAGATGA ATCTCAAAGA
311951 TGCTATGTTA ATTGAAAGGC ACCAGTTCTT TAAAAGCTGC ATTCTGAATG
312001 ATTCCATTCA TATGACATTC TGGAAAAGGC AAAACTGAAG GAACAAAAAC
312051 AGGTCAGTTA TCACCAAGGG GTGGAGGGAG GACTTGGTTA CAAAAGGATA
312101 TGAGGGAATT CTGGAGTGTG ATGAAATTGC TCTGTATCTC AGTTGAGGTG
312151 TGAGTTAGAT GGCTGAATGA GTTTATCCAA ACTCATAGAG CTGTACATTC
312201 AAAAGAAGAA ATTTTGTTAT ATATATTTTT TTATCAATTT AAAAAATATA
312251 TAAAAAATAA AAGAGGGAAT CCCAAAGATG AAATAAAAAAC AAAACATTCC
312301 TGGGACTTAA CAGACTCTTT GAAAAACAAG TTTTCTTCTA TTTTCCCCTC
312351 CTTTCCCTGA GAAAGAATTA CTCATGATTG AAAGCCCTTA AAAAGAATTT
312401 GCTTACTCAG ATATTATTTT TAAAAGGAGT GAAATTCATG ACTCACAAAG
312451 TGTCTATTTT CTCTCGCTT TTAAGTCATT TTTTACTTCA TTTTTCACAC
312501 AAATAATTAT CGATCACCTA TAAGCAAAGA ATGCTCTCCT GAGCTCTCAC
312551 TTATAATTGA ACATTTAGAG CTGAAGGAAT CCTTAGAAAT CAGTAGTCT
312601 ACATTGCAGA TGAAGTAACT GAGGCTCTGA AAAGTGAAAG TCACTCACCC
312651 AGTGCCACCC AGAAAGTTGG TGGCAGAATC CCAGCCAGCA CTTAGAGTGT
312701 CTAACGGGGC TTCGGTCTTT TCACTGTGCT CATCTTTGCA GCCCCTGAAC
312751 CTTATCCTAA GAAGCTAACA GCTGCTTTGA GAAGTGATTT CTTCAGCTGT
312801 GTGAATGTAC CCTTCACTGG TGGGATTTAT AAAGTGATG GGTGGGGGTA
312851 CAGGGAATAA TTTGGGACAA AGCATTGTAT TCTGAGCTTC TGGAACTCA
312901 CTTACAAGC TGCTTCCCTT CCCTAAGAGG AGTCCTTGTT TCTTACAGTA
312951 AACAGGAACA GGAACAGATT GCATTAGTA ATCATTAGTA GGCACCTGGA
313001 AGTGGCAAGA TCCCTCTCCT GTTACTATCA AAGCTTTGTT TTTACCCAAG
313051 AGCAGTAAGA ACCTTCTTGA ACTGGTGTAG GTGGAGCTCT CTAATAATAC
313101 CCCAAGATAA TGAAAGACAC TACTCCTGAA GTCATCCTTT AGGCTAATAC
313151 ATAAAAGGAT GGATGACCAG AGGGTAAGAG CTGGTAAATC CCAAAGGCGT
313201 GAGCAATGCA AATTGAGGGA CATTCTAGCA TCCAGATCAT TGAAGGAAAC
313251 TAAAGAGACA TGACAAGTAA ATGGAACCTA TGATTATTTT GAATGCTTTG
313301 TTATCAGGCA GTGTTATTGG ACAATTGGGG GAAATCTGAA TGTTTCCATA
313351 TACAAGATAA CAGAATCAGA TCTATTAATG TGAATTCCTT GATTCTGGTG
313401 GCAGTTTGTG GGTATGTAG AAGTGTTTTT ATTTGTACAA AATACACACA
313451 AAGTATGAGT GGGGGACATT GGGGTAGCAA CTTATTCTCA AAAGACTCAG
313501 GGACAAAATA GTTCTTTATA CTATTCTGT AACTTTTCTG TAAGTATGGG
313551 ATTCAAAATT AAAATAATAT TAAAATATG AGGACATTTT AGATATTATC
313601 CTTATAAAAC TAAGCAGCTA TGGCTGTATT CTTTAGAGCC CTTATTAGAT
313651 AGAGATAAAT AATTAGAGGG TACACAGCAT AGTCTATAAT TGATGGGCAA
313701 ATAAGTAGAT GTGATAAAAT GTATTTTTTT ATAAATGAAA GGTAAGCACA
313751 GGAAGAGGTA ATAAAGGAAT TTGGAGGATG AGAGATTGAG TTTGGAGGAA
313801 ATGGGCAGGG GAGAGAAGAA GAGCTTTCTT GGTGTTTAAT AGTTTTTCAT
313851 CAGCAAGGGA GTCAGCCAAA CACGTATTCG GGATGTGACC CCAAGCAGTT
313901 CAAATTTTGG AACATTAGGG AACCTTCCTT CAGGACTCCT GTGTCAAGGG
313951 ACCATTATCC AGCCCAACGA GCACTGTCCT GAGAGTCCTG AAACCTGGAC
314001 TCTAGTCCCC TATTTGTCCC CAACTGCCAA TTCAATCTTG GGCAAAACAA
314051 CCTGTAATG AAGTATTTGG ACTAAAATGA TGTTTGACAA TCCCTAAAAA
314101 ACTTAAAAGG CTTTGTGTTT TTGAAGAAAA TGATAAAATT TAGAAAGGAA
314151 ATGCACCATA GAAAGAAATA GAAAACAATG AAAATATAAA TTCTTTTAT
314201 TTGAGATACC CAGCTAACTA AAGGAATAGT TCCTGCCACC CCATGTCCCT
314251 CTCTTTGAAA AAGGAAACAT AGGAACTCTT TTAATTTGAA CAGCACAGAG
314301 AATAC TGCCC TCCCTTCTCA CATCTTAGAT AACAGCAAGA GAGTCTCTT
314351 AAATTGAATT TCTATTTATG AATCTAAAAA TTCAAATGCA TCATTGCAGA
314401 ATATAGTGTG TTTTCCAAAT ATCAGAATAA ATTTACACGG CAATATTCCA
314451 AGACTAGAAC ACCTATAGCT TTTCTGTCAG CCTAAAATGA GTTTGTTTAT
314501 GGAATGACTG ATTTTGTTTT TGACCCGTAA TTTATTTAGA ATGTATTATT
314551 TTAAAATTTA CTCACATGTG TAAATGTTTA ATCTTTATTT TTATTACAGA
314601 TTTCTAACAA TTTTATTATT GGTACAGACAC TAGATTTTAT ATGAAACCAA
314651 TTATTTCAGC TTTATTGAGG GTTAAATTGT CTAGCACATG GTCAGTTTTT
314701 GCAAAATGTTA CATGAGAGCC TGGGAAGAAAT GTCTTGCTCT ATGTGTATCT
314751 ATTAAGTTCA GCTTATTAAG TATGTTATTC AGATATTTT TATCATTAAT
314801 AATATTTTGA ATGCTTCACT TATCAATAAC TGAGCAAGGT ATATTAATAA
314851 CCAGCATTTG GAGAATATAT CTGACAGTTT CTCTTTGTAG TCCTCTATGT
314901 ATTTTGATTC TGTTTTATTA GATGCATGCT CATTTAGAAAT TCTTTTTTTT
314951 TTCTTTGTGA ATTGAATTAT TATGTAGTGA CTTTCTTTAT CTCTAATAAT

```

FIGURE 3, page 100 of 141

315001	GCTTTTTTAA	CTAAAAATGT	ATTTTATCA	TATTAATATG	GCTACCCTAG
315051	ATTTCTTTTG	GTTATTATTT	GCCTGGTAGC	TTTGTCAAAA	ATTATTTTAC
315101	TTTCAATCTT	TCAATGCCAT	CATGTTATGG	GTATATTTCT	TGTAACAACA
315151	CCTAGCTGGA	TTTTGTTTTT	TAGTCAGTGA	GTCTAGTCCA	TTTACATTTA
315201	TTATAATTAT	GAATGATGGT	GGGTATTTAA	GTCACAATTA	AAATAATCCT
315251	TTTAGAAATG	GTTTTTAAAC	GTATATTTAA	CCAACATTTG	CACTCAGGAT
315301	CCTGCCCAGA	GTTAACTGAG	AAAGAGGGAA	GTGCCATTGA	CAGAAAGAGG
315351	CCTTCAAGGC	ACGTGCTCTA	TCTGGGCACG	CTGCAGGCTA	TGGAAGCCTC
315401	TACCAGTTCA	CCTGCCTGCT	TCTGGAGAGA	GAGCTGTTCT	GTCTTTGCCC
315451	ACCTGATTCA	GAGACAGCCA	TTTGAAACAC	TACACATGGA	GAATTTTAAA
315501	CCTCTTTCTG	TAAAATGTAT	CCTTAATGAA	GATTCCGGAT	GCTTGTTAGC
315551	ACCAAATGAT	TGTTGAAATG	ACGATATTTA	AGGTAATAAT	CATTGTACCA
315601	TTCCATTCTT	GCATGACTC	ACACATATTT	GAGTGTGAGG	GATTTCTTAC
315651	ATTCCACAAA	ATCATTTTCA	GGGTTTCCTT	AAACTATGCC	TGTGTTCTCT
315701	TAAGGCTTTC	TGGTAAACCA	GGTTTTCATG	ATTATTTCTA	AGAAATTACA
315751	TGTTTTTCAC	TCCCAGTGTG	TCTAGTGTCT	CCTGGTGTCT	TTTTTTTTTT
315801	TTTCAAAATC	ATCCAGAGAA	GTTAAAAAAT	CTAAAATAGT	ATCTTAACCA
315851	AGATAGAGCT	ACAAAATTGT	TTGAGGCTTC	CAGTTTAAAC	GAATAGGAT
315901	TGCTATGCAA	TTCAACCATT	AGAAAGCAAC	AATAACGTAC	ATGATAGTAA
315951	ATAATACCTA	GCATGATAAG	AGGTGTGTGT	GTGTGTATAT	GTATGCATGT
316001	ATGTCTGTGT	ATGAAATCCC	CACTTAAATA	TAAGAAACCG	AAGACATAGA
316051	AAATTTAAGT	ATTTTACTCC	ATTCCGATAC	TATAACAAAA	TACTTCAGGC
316101	TGGCCAATTT	ATACACAATA	GGAATTTTAT	GATAAATGAC	TTTTACCTCA
316151	ATTTTAAAAA	AAGAAAAAAT	ATATGTATAC	AAAGAAGTGA	CCAGGGGAAT
316201	TGGCCATATG	AAAGTCAATT	ATACCATAGT	GAGAGTAGTT	TCAGGGAAAA
316251	AGAGAGGGCC	AAGACTCAAG	AGGAGTGGAT	TCAGAAAGAG	TGTGCAGTAA
316301	AAAAGCAACA	AACATAAATC	TTTCAAGAAG	TTTTGTTGGG	AATAGAGATC
316351	AAAGTGATGG	GTTGAGAAGG	GGATGAGCCT	TGGGGGATGT	GGAGGTTAAA
316401	GGAGGTTTTA	TTGTTTAGGA	AAAGATATAG	CAGGTCATGT	GTGTACCCTA
316451	ACAGGAATGA	TCTAGTAGAG	GTAGAAAGTG	ATTGTGAGGT	AAAGAGAGAA
316501	GATGACTGCA	GGAGGGAATG	TCTAGTGTAT	GGTGACAGAG	GCCAGGATCC
316551	AGAGACTCTA	GGTAGAGTTT	TGCTTTTGAT	AGGAGCAGGG	AGGATCCCTT
316601	AATTAGGCAC	AGAAGAGGAG	GCCAAGTATA	TAGTTACTGA	TCCAATAAAG
316651	TGGGCAGTTT	GAATACTGGG	AAAATGGAAT	GTTTATGTGA	TGTTTTGGGT
316701	TTTCCATTTG	AGAAAAACAG	TGAAGTCATT	GGCTGAGAAG	TAGGGTGAGG
316751	GTCCAACCTT	ACATTCTCCT	TCCACACTGC	CCTAGTAGAC	TATCTCTGTG
316801	AGGGCTTTCAC	CCCAGCAGCA	GGCTTCTGTG	TGAACACCAG	GCTTTTGCCT
316851	ACATTCTCTG	AAACCTTAGGA	AGATGCTTCC	AAGCCACTTT	CACTCTTGCA
316901	TTCTGTGCAC	CTGCAGGCTT	AACACCATGT	AGAAGCTGCC	AGAGCTTATG
316951	GCTTGCACCC	TCTGGAGCTC	TGGCCTAAGC	TGGACCTCTT	TGAACCAAGG
317001	CTGAAACCAG	AGCAGCTGGG	ATGTGAGGAG	CAGTGTCCCG	AGGCTGTGCA
317051	GGGCAGTGGG	TCCCTGAGCC	TGGCTCCTGA	ACCCATTCTT	CCCTCCTAGT
317101	CCTCTGGGCC	TGTCATGGGA	GGGGCTGCCA	TGAATATCAC	TGAAATGCCT
317151	TTGAGGCCTC	TTCCTCATTT	TCTGGATATT	TACACTTAAC	CCACTTTTAG
317201	GTATGCAAAT	ATCTCTAGCA	GGTGGTTGCT	CCATAGCCTG	CTTGAATTTT
317251	TCTCCCCCAA	AAAAGCTTTT	TCTTTCTTTG	TCACATGGCT	AGGCTGCAAA
317301	TTTTCCAAAC	TTTTATGTAT	TCCTTCCCTT	TTAAATATAA	ATTCCAAATT
317351	TTGTCAATTT	TTTGCTCCAA	TATCTGGACA	TAGGTTGTTA	GAAGCAGCCA
317401	GGACACATCT	TGAAGGCTTT	GCTGCTTAGA	AATTTCTTCC	ACCAGATACC
317451	CTCAATCATC	ACTTTGAAGT	TCAAACTTCC	ACAGATCCCT	AGGGCATAGA
317501	CAGAATGCAG	CTAAGCTCTT	TGGTAAGGCA	TAACACCTGT	GACCTTTGCT
317551	CCAGTTCCCA	ATAAGTTTCT	CATTTCCATC	TGACACCTTG	TCAGCCTGGA
317601	CTTCACTGTT	CATATCACTA	TCAGCATTTT	GGTCACAACC	ATTTAACCCG
317651	TCTCTAAGAA	GTTCTAAACT	TTTCCCTCAT	TTCTCTCTCT	CTTCTGAGCC
317701	ATGTGAATTCT	TTCCAATTTT	TGCCCATTTAC	CCAGGTTCCA	AAGTGTGCTC
317751	CACACTTTCA	GGAACTTTTA	TAGCAATGCC	CCTCTCTCTG	GTATCAATTT
317801	TCTGTATTAG	GCTATTTGTT	GCATTGCTAT	AAAGAAATAT	CTGAGACTGG
317851	GTAATTTTATA	AAGAAAGAAG	TTTAATTGGC	TTATGGTTTT	CCAGCCTGTA
317901	CAAGCATAGC	ACCAACATCT	GCTTGGCTTC	TGGGAAGGCC	TTAGCGAGCT
317951	TTTACTTATG	GCAGAAAGGG	AAGTGGGAGG	AGGCATGTAA	CATAGCAAAA
318001	GCAAGAGAGA	GAGTGGGGAG	GGGAGAGGTC	CCACACTTTA	GAATAACCCG
318051	ATCTTGTGAG	AAATTCATTCC	CTACATCAAG	GACAGCACA	AGCCATGAGG
318101	GACAGGCTCC	CAAGACCCAA	ACACCTACCA	CCAGGCCCCA	CCGCCAACAG


```

318151 TGGAGATTAC AATTCACAT GAGATTTGCA CAGGGACAGA TATCCAAACT
318201 ATATCAGTCC CTTATAATCC TTTTCTATTT CTGATGCATC TGTTGTGATG
318251 TCTCCACTTT TATTTCTGAT TTGATTTATT ATTTGCATCT TTTCTTTTTT
318301 CACTAGTCTA GCTAGGCTT TGTCAATTGT GTTTTGTGTT TCAAATGACC
318351 AACTCTTGGT TTGATTAATT TTTTCTATG TTTTCTATTC CCTATTTATT
318401 TTTATTCTGA TCTTTTGCAA AAATAAATTA ATGGGAGTAT GTAAACTAA
318451 AAAGATTCTA CACAGCAAAG GAAACAATTA ACAAAGGAAA AGACAACCTA
318501 CAGACTGGGA AAAAATATTT GCAAACCACA TATCTAATAA GTGGTTAATA
318551 TCCAAAATTT ATAAAACTC TTACAACCTA ACTGCAAAAA ACCAAATAAC
318601 TCAATTTTAA AAATGGCCAG AGGATCTGAA CAGATATCTC TCCAAAGATG
318651 ACATAAAAAAT GGCCAACGGA TATGAAAAGG TGCTCAGGGT CACTAATCAT
318701 TAGGAAAATG CAAATTAATA CCTATGAAAT ATCACCTCAC ACCCCTAAGA
318751 ATGTCTGTGA TCAAAAAGAA GAAATAACAA ATGTTGGTGT GGAGAAAAGA
318801 GAACCCTAAT ATATACTGCT GGGGGACAGT AGACTGGTAC AGCCACTATG
318851 GAAAACAATA TAGAGGTTCC TAAAGAAATT AAAAGTATAA CTACCAATGA
318901 CCCAGCAATC CCTCTTCTGG GTATATACCC AAAGGAGAAG AAAATACCAC
318951 CCCATAAAGA TATCTCCCAT GTTCATTCCA ACATTGTTCA CAATAGCCAA
319001 GATATGGAAA CAATCTAAAT GTCATCAAT GGAGAGTGG ATAAAGAAAG
319051 TGTGGCATAT ATATACAATG GAATATTATT CAGCCTTATA AAAGGATATC
319101 CTGTCATTTG CATAACATG GATAGACCTG GAGGACATTA CGCTAAGTGA
319151 AAAATAGCCA GACATAGGAA TAAAAATATT GCATGACCTC AATTATATAT
319201 GGAATATTTA AAAAAAAGG GAGCTCAAGT ACACAGAGAT AGAGAATGAA
319251 ACAACGGTTA CCTCAGGCAG GGTGGGTAGG GGAGAGGAAA TGAGGGGAATG
319301 TAGGTCAAAG GATACAAAAC AGTAGATACG TAGGATGGAC AAGTCTAGAG
319351 ATCTAATGTC AATATGAGGA CTAAATTAAT TAAATTTATA TTGTATTGGG
319401 AATTTTTGTT AAATAAGTAG ATTTTAGCTG TTCTTGTGAT AAAAAAGTAA
319451 CTATGTGAGG TCATAGATAT ATTAATCTGC TTCACTATAG TAACCATTTT
319501 ATTATCTATA TGTATCCCAA AACATCATGT TGTAACCTC AAATATACAC
319551 AATAAAATTT AAAAAATCAA AATAAAATAT TTTTAAAGG AATAAAGGAA
319601 AACATTTGAA GTAGTCATTT TGGGAGGAAA ATAAACATAC TGGGGAAACA
319651 CGGTAAGATT GCTGGGCAGT GCTGAGTGCC ATTCTGAATC AAGATTATCA
319701 TCTTAAATGA GAGACTTGGT ATATTTGGAT GCTTTTCTCC ATAAATATTC
319751 TCTTGTGTTG GTACAGCCAT GGAGTAGGTA TACGACTGAG TTTAACCATT
319801 AGGTCTTTGC CAAACAAAGG GAAAGGGGTG GAAAAGTCA AAGGTATTTG
319851 CGAGATAATG GTTATGATGA TGGGCCATGA AATTAAGTGT GAGGAGGTAG
319901 GTGAGGAGTG AGTATATGAG GTTACAAAAG AAGTGAGTAA TTATTATCAT
319951 GGGGGTAGAG TCGAAGTGAA GGGCACCATG AAGTGGAAGA TTAGCTGGTA
320001 AGTATGGTGG GAGGGCATTG AGGGGGTGAT TAGAGAGTAG GAGGCTTGAA
320051 ATCAATTTCG GAGGTCATGT AGTCATTGGC ACTGATGAGG TCAATTGATA
320101 TGATCATGGG AATGGGCAAC TCAGGTAGGG TAAAAGAAAT GATGGCTGAA
320151 TGGGAGGCAG TTCAAAACCA GAGACAGCAA GAATACAGAA GTTAAGAAATG
320201 ATGACAAGAG TACAAGGTGG AAGAAAGAGT GGGCTAGTCA CTGAAGTAAT
320251 CAGTGTATGA AGAGAATGAC CAGGGTTTGG TAGATGTCAG CAAAAGAAAC
320301 ACCTGGATTT TGTGGGGGTG ACTGAGGTGA CTAGGGATGT TAGGCATGCT
320351 GGAATCAGTC CTGACAATCT CATGACAGAA GGTGGGAAAC TTATTGTGGA
320401 GCCTAGGGCT GCTGGTTTCT CCAGCATCTG GTGTTTAAAG ATCAGCATTT
320451 GAGTCCAAAC TCTACCACAC TAACTGTGTG AGCTTGTGAA AGGCTACGAA
320501 AAACCTGCTT ATTCTCATCT GTAAATGAA GACAAATGTT CAATGAATTG
320551 CCTAGTTCAT AAGGAGCATT TGAAATAATG AATGCAAAAG CACTTTGCAA
320601 GCTCTAAAGG GCTATAGAAA TGTTAGTTAA AATTAATAAT TTATGTCTTG
320651 CATTTGTCATG ACCAGCCTTT AAACCAGAGC TAGAAGAATT ACCTATTCAT
320701 CTTCTTTATCG GCCACAATAC GTAACACATA TCCTATGATT TAGAGATTAC
320751 AAGCTTGAAT AACACTGAAC AATAAAAGCT TATAAAATGA ATGAGTCTGT
320801 GACTAATGTC TCCAATGTTA TTATCAACAT TACCATCATT ACTGTTAAGC
320851 ATTAATGCTT CAAAAATGTT GAAAAAAGGC CGGACACGGT GGCTCACACC
320901 TGTAATCCCA GCCTTTGGG AGGCCAAGGT GGGCTGTAA TGCCAGCACT
320951 TTGGGATCAC CTGAGGTCAG GAATTCGAGA CCAGCCTGGC CAACATGGTG
321001 AAATCCCATC TCTACCAATA TTACAAAAAT TAGCCAGGCG TGGTGGCAGG
321051 CACCTGTAAT CCCAGCTACT CGGGAGGCTG AGGCAGGAGA ATCGCTTGAA
321101 CCTGGGAGGC AGAGGATGCA GTGAGCTGAG ATCACACCAG TGCAGAGACT
321151 TCATCTCCAA AAAAAAAGG TACACATCCT GGTTTTCTT TTTACCAAAT
321201 CCATTGAAAT GAAGAAAAAG TAATATTTCT TCAAGTTAAA GTCACACAAA
321251 TATTTATACA CTTTGACCTA ATAATCTCAT TCCCATAACA TTTTATCAT

```

FIGURE 3, page 102 of 141

321301	TTAATCAAGC	ACAACATATA	TTTACTCTTT	TCTCTGTTCT	TCAGAGAAAA
321351	GTGCAGAAAC	CATAAGTACA	CATATAAATT	TTTAGAGTGA	ACACACACAT
321401	AATAGCCCAA	CTCCTAAAAA	TTTGATGTCA	TAAAAATATC	CCCTAAAAATG
321451	TAAAAGCCTA	ATATCTAAAG	ATGAGGTATT	CACACTATGT	TATAGTGCAA
321501	AGGAGCAAAA	AAAAGCTCAT	TGTTTGGTGA	AGGGAAAATG	GAGTAAATAT
321551	TGGCACATAA	ATTCAGTGGA	ACAATATGGA	GCCATTAAAA	ACGACAACCG
321601	TGAAGAACCG	CAAAACAAAA	TCCACCAACT	TGAATGCCCT	TGAGTTAAGT
321651	GGGTAGAAGA	ACTATGAGAA	GGAGCCTGGT	ATAAGATGAT	AAAAGATAGG
321701	GGAGGTAGGT	CAAAGACGGT	CAGAAAATGC	AGAGTACAGA	GTGCTTGCAG
321751	GCCCCACATA	AAGACATTCA	CATTAAAAACA	TTTAAAAATA	ATAAAGGAAG
321801	ATAAACATG	GTATTGAAAA	ACAAAACATG	TTATGGACCA	AATGTTGCCC
321851	ATAGGTCTTT	AGTTTGTGAC	CCTTTCTGGA	GATAGAGGAA	AATAGTCAAC
321901	GGTGAAATAA	ACATACTAGA	TATGGCAATA	TGATTATAAC	ATAAAGATTA
321951	TGTTGACATA	TGGACAATCA	CTGGAAGTGT	GGAAAAAATG	AATGTCGGCC
322001	TTGGTGAAAA	CTTGGCCAAA	TAACCTTTACC	CCTTTTAAAGC	CTCAGTTTCT
322051	TCATCTGTAA	AATAGGGATT	TAAAAAATTG	CCTCCTTCGT	ACAGCTGTTG
322101	TAAAGGTTAA	GTGTGATTGA	AAGGGCAAAG	TGAGTAGAAA	AGGACCTGGC
322151	AAGTGCCAAA	CAAAACTATT	CTCCCCCTCA	TTTTCTCTCT	CCTCCTCCTC
322201	ATTATTATTT	TGTTATTATT	AACATTTTCT	GCATTTTATA	TCCCACCATC
322251	CTGTTTCCCT	TTGTTCTACT	AACTCCAGCC	ACAATAGCTT	TCTTGTATT
322301	TTTCCAATAT	GTTTTAGCCT	TAGGGCCAAA	ATTCTTTTGC	CCTTAGTATT
322351	TGCTTACTT	CCTGAGAGCT	TTTGCTCAAA	TGACACTTCC	TCAGAAGGAT
322401	TTTCTGTCC	GCCTCACCCCT	GCTTTTTCTT	CATTGCACTT	AGAACCATCT
322451	GATATCTTAT	GTGTATATGT	GTATATATAC	ATACGTTTAT	ATAAACACAT
322501	CTGTGTGTAT	ATCTGTGTAT	TATATATATA	TACACACACA	AGGGCAGGAC
322551	TTTGCCTAAC	TTGTTTACTG	CTATATTCCC	AGTTCCTTGA	AGGGTACCTG
322601	GCACATAATA	GACATTGAGG	CATTATTTGT	TGAATACTGT	TAAATGTTTA
322651	GGGTGGAGAT	ATTGTGCCCT	TTCTTCCCCC	TTTTTTTCTA	AATCCCAGAA
322701	TGACAATGTT	TGTAATAATCA	ATGATTTAAA	AGCACATTTT	CCTGCAGGTG
322751	ATCTTAATGT	GTAACCTTTT	GTAACTTTTT	GTAACTTTTT	TGACAGATCA
322801	GCCATGCAGA	AGCTGGGGAC	AGAAGTATTT	GAAGAGGTCT	ATAATTACCT
322851	CAAGAGAGCA	AGGCATCAGA	ATGCTAGCGA	AGCAGAGATC	CGCGAGTGT
322901	TGGAAAAAGT	GGTGCCCTCA	GCCAGCGACT	GTTTTGAAGT	GGACCAGCTC
322951	CTGTACTTTG	AAGAGCAGTT	GCTGATCACG	ATGGGAAAAG	AACCTACTCT
323001	CCAGAACCAT	CTTAGGCCAA	CTATCAAAAA	GAAGCAGAAG	TTCAAGTGGA
323051	CAAATTTATG	TGAAAAATTCA	TTTAACATAT	AAGCTGAAGT	CTATTATGGG
323101	GAATGGATAC	AAAAGCAGAG	CTCCCATCTT	GACTTTCAAT	TCCTCATCAG
323151	AAGTACTGGC	TTCTTTAGAG	AGTAGTAAGC	ATGGCTGCCT	ATGCTTGGAG
323201	TCATAAGTGT	TATTTGGACT	ATACCCCTGAG	ATAAGCTTAT	AGATCAAGTT
323251	TGGCTCCCTT	GAAAAGCATT	TCTCTCATGT	GCGCCCTCAG	GGCTTCCAGC
323301	AGGATTGAGT	CACCCGTACG	ATGACCGGGG	AGAAGCCGTG	TGCTCTTCAT
323351	TATTTTCAGC	TGGAGGACAG	AGCTCAGTGC	CTGACTGCCT	AGGGTCTCAT
323401	GGACTGTAGG	CAGCCTGCCA	GTGAAGGTCA	CTGGACTCTA	GCCTACAACA
323451	TGCTGAGCTA	CAGCCCAGAA	GCCAGACATG	CCTGTCTTAG	CTGACCTGTT
323501	TTTGGTCCAC	TTTTGGCCCT	CCATGACTAA	TAAGGAAGAT	ATGTGTGTAT
323551	TTTCATACACA	CACAAGGACC	TGGATTAAAA	ATCCAAAAAG	TGATTCTCTT
323601	CTATGATTTA	TTTCAAATCT	ATCCATAGAT	AATTCAAGAT	TTGTATTCAA
323651	AATAAACATA	GTTTTTCACAG	TTACAAAAAT	AATCACCTAT	TTTATCTTTT
323701	CCTTATGTAA	AACTTTCTTA	TTGAATGTAA	CATATCCATC	CCTTGATAAT
323751	TATTACTTAG	AGCCAGTAAT	ATTTGGTTAA	TTTGGTGCCT	GTTGGGTACT
323801	AGTACTGTGC	TTAGTAGTTT	AAGGGCCTTC	ATTGGATCTT	TTCACTAACT
323851	TGAGAGAGAT	AGAGTGAAAG	AGAGAGAAAG	AGAGAGAGAG	AGACAACAGA
323901	GAAAGAGAGA	TGCTCAGGTT	AGGTAATTTG	CTTAGTCACT	CAGCTGCAAG
323951	AAGCAGAGTT	GGCATTTGAA	ACTAGGTCTG	TCGCATTCCA	GAATCCATAC
324001	TCTTAACCAG	TGTCTATCAG	AATTTTCAAC	CATGGAACTA	TATTAGATTT
324051	GCTTGTGAAG	CTTTTTAAAC	ATAGACACAT	TAAATATAC	TGTTAATGAA
324101	AAAAATTATTG	ACACTTATTG	AAATGGCAAA	AAGACTGTAA	TCAGGACTAT
324151	TTTGATAGGT	ATCAACAATA	TTGCAATATG	GGAGAGGCAT	TGGGCTCAAC
324201	TCTGAAGTTT	CTTTGCTGAA	GCAAAGAAAA	CTAGAGATTA	ATAGCCAATT
324251	AGCAGGATAC	GGGCCTTGGT	GGA'TGGAAAA	TTTCTAAAAAG	GAGTATTCAA
324301	AGGTTGGGGG	TTGTATTTCAT	CTGTTTAGTG	TTGCCATAAA	AGAATACCAG
324351	AAGCTGAGTA	ATTTATAAAG	AAAAGAAGTT	TATGTAGCTC	ACGGTTTTGT
324401	AGGCTGAGAA	GTTCAACGGC	ATGGCCCTGG	CCTCTGGCAA	AAGCTGTTGT

FIGURE 3, page 103 of 141

324451 GTTCCATCAC AACACGGCAA TGAAGGGGAA GTGGACAAGT AGGAAGACAG
324501 AGAAACCTGA GGGGTGTCCT GGCATTATAA CACCCACCCT TTGGGGAAAT
324551 AATCCATTCC TTCAAGAAAC AATCCAGCCT AGAGAGCAAG AACTCCAGAG
324601 CAGTAGCAAG CTATTTTTC A GGGTGCTCCC CCATAATCCA AACATTTTCC
324651 ACTAGGCCCC ACCTCCCAAC ATCACCCTT TGGGGATCAA ATTTCAACAT
324701 AAGTTTGGGA GCAGGCAAAT ATTCACACCA TAGCAGGGAG ATTCCTGCTA
324751 AACTGACTTA AGATTCCAC TGGAGGAAGG CCAGGGTCAT CAGAGATTGA
324801 GGGCAGGTGA TGAGGAATTT GATCAGATAC TGAGGGTGAT CAGCTATCAA
324851 ATGTGGGGTA TTCTCAATAA ACTGACTTTA CCAGAATTCT TGCTAAAAC
324901 GGGTTTGGCA GGCTGAAGAC AGAGCCAAGA ATGAGGCCTC ATAAAAAGA
324951 GGGCTCAAAA GAGCCTGTCT AAAGTTTGGT CGAGGAGATA ATCTTTGTCA
325001 ATACCAAGAC CACCCCACT CCTTCTCTG GGAAGACAAG GGGCTAAAAC
325051 ATATCTATTG TTTCAGAACT GTCTGGGTGA ATTTGATGCC CACAGTACTG
325101 TTATTCCTT TTCAGCCTCC TGCTGATGAC TGAGGAACT AAGAGAGTTT
325151 CTTTATCTTA CTAACCTGTT TTCAGTGGTG CTGTGCTTCC TGCATGATGC
325201 ACTCTTTTAG ACCAGTGATT CCCACATTTG AGCATGCATT CGAATCACCT
325251 GGAGTGCTTG TTGAAGCATA GATTGGTGGA TTCCATCACC AGCATTTCTG
325301 ATTTCAAGAGA TCACGGTTT TAACATGTTT CCAGGTGGTG CCAGTGCCAC
325351 TGGTACCACA CAGAACAATT GTTCAAGACC TTTCTTTCTG TTGTCTCTCT
325401 TCTCCCCCTC CCTCTTTTGG GAACAGTGTT TTGGCTGCTC TTAATTGGGG
325451 GCTTAATTAA TCTCACATCT TGGAAAGTGG TATGAGGACT TCCAAGAAGG
325501 GTCCAAAGAC TTCAAATGCT TCACAGTGA TATAAGCAAG TAGTGACTGG
325551 GGTGGAGTGG TAGGTGAGTC AGTGTGAATA ACTTGAGAGA ACTTAATGGG
325601 CTTATTTTAA GGACAAAAGG GCATGGCCAC TGTGCCCTAA CACTCTATCC
325651 TGTGGCTTCA CTTCTATCCC TGCCCAGCAA CCAAAGGAAC CACCCAGGTG
325701 AATCCACAAT TTCTCTAGTG CTCAAGGGT ATGAACATCA CTCTTCTGAG
325751 TTCCACAAC TCCCTTACAT TATAGAGAGG TTTTGGGGGC TGCACAAAAC
325801 TTCATTCTGC CTCTTCCCAA AGCTAATGAT GCCCATCTC ACCCTCTCTC
325851 CCTGCATACT GGAGAATTAT TCCTGGCTGG GAGGCTGGGG GTCAGGAGCA
325901 TGTCTGTGCT CTCACAGCCC CTGTGTCTGC AGCAGGAAAA GCAGACCTCA
325951 AATACTGCTT CTGGAGGTGG GATCTGAGAC TTTTCAGAA TTGGAACCTG
326001 AGTGTGTTTC CCAG

FEATURES :

Start: 3000
Exon: 3000-3169
Intron: 3170-53737
Exon: 53738-53903
Intron: 53904-83114
Exon: 83115-83233
Intron: 83234-106060
Exon: 106061-106125
Intron: 106126-107148
Exon: 107149-107275
Intron: 107276-125710
Exon: 125711-125860
Intron: 125861-125953
Exon: 125954-126032
Intron: 126033-128358
Exon: 128359-128444
Intron: 128445-135733
Exon: 135734-135853
Intron: 135854-138750
Exon: 138751-138844
Intron: 138845-142152
Exon: 142153-142264
Intron: 142265-144095
Exon: 144096-144097
Intron: 144098-144098
Exon: 144099-144210
Intron: 144211-201858
Exon: 201859-202019
Intron: 202020-216887

Exon: 216888-216948
 Intron: 216949-246929
 Exon: 246930-247026
 Intron: 247027-322796
 Exon: 322797-323013
 Stop: 323014

CHROMOSOME MAP POSITION:

Chromosome 3

ALLELIC VARIANTS (SNPs):

DNA				Protein		
Position	Major	Minor	Domain	Position	Major	Minor
1139	-	G	Beyond ORF(5')			
1399	C	G	Beyond ORF(5')			
1872	T	-	Beyond ORF(5')			
1876	G	-	Beyond ORF(5')			
3180	G	A	Intron			
7590	T	A	Intron			
9315	T	C	Intron			
9572	G	A	Intron			
11004	A	G	Intron			
11379	-	A	Intron			
12478	G	A	Intron			
12486	-	T	Intron			
13904	A	G	Intron			
25445	T	-	Intron			
26805	T	A	Intron			
28010	G	A C	Intron			
28107	C	T G	Intron			
28107	T	C G	Intron			
28178	G	A C	Intron			
28356	T	C	Intron			
29535	A	G	Intron			
31808	C	T	Intron			
32807	T	C	Intron			
34531	A	G	Intron			
35318	A	G	Intron			
35463	T	C	Intron			
35477	C	T	Intron			
37050	A	G	Intron			
37470	T	G	Intron			
37481	G	A	Intron			
37499	A	T	Intron			
40178	-	A G	Intron			
40178	G	A	Intron			
40787	A	G	Intron			
44582	G	A	Intron			
45615	C	A	Intron			
46091	C	T	Intron			
47844	T	C	Intron			
48013	G	T	Intron			
48072	T	A	Intron			
50802	G	T	Intron			
53305	G	A	Intron			
53379	T	-	Intron			
56233	A	G	Intron			
56453	G	C	Intron			
59300	C	T	Intron			
60998	G	A	Intron			
63013	G	A	Intron			

63293	T	A	Intron
64181	C	T	Intron
64191	G	A	Intron
68992	A	C	Intron
76246	T	C G	Intron
77368	A	G	Intron
78043	G	A	Intron
79395	A	T	Intron
79474	A	G	Intron
79992	G	T	Intron
81065	T	C	Intron
81350	C	T	Intron
81474	G	A	Intron
82037	A	G	Intron
83258	G	A	Intron
83790	G	A	Intron
86565	C	T	Intron
86707	C	T	Intron
87243	A	- G	Intron
87243	A	G	Intron
95967	A	G	Intron
96374	T	G	Intron
100283	T	C	Intron
101074	C	- T	Intron
103767	T	A	Intron
104082	T	G	Intron
104473	T	C	Intron
105573	A	G	Intron
105668	C	T	Intron
106657	T	C	Intron
106855	G	T	Intron
106957	T	-	Intron
107957	G	C	Intron
108454	G	T	Intron
109894	G	A	Intron
110467	A	G	Intron
110538	C	T	Intron
113089	A	G	Intron
113964	A	G	Intron
114354	T	G	Intron
120163	C	T	Intron
124748	T	G	Intron
127581	C	T	Intron
128202	T	G	Intron
128496	T	C	Intron
130108	T	G	Intron
132240	T	A	Intron
133120	C	T	Intron
135891	T	C	Intron
136385	G	C	Intron
137408	C	T	Intron
141673	-	T	Intron
141688	T	A	Intron
141736	G	C	Intron
141982	T	C G	Intron
150406	G	C	Intron
150903	G	C	Intron
152612	T	C	Intron
153900	G	A	Intron
158595	G	T	Intron
162718	-	C	Intron
164528	G	A	Intron
165214	C	G	Intron

FIGURE 3, page 106 of 141

166052	C	T	Intron			
170782	T	C	Intron			
171439	C	T	Intron			
175068	-	T	Intron			
178314	G	A	Intron			
179835	G	A	Intron			
186140	G	A	Intron			
186541	-	C	Intron			
188058	G	T	Intron			
188593	A	C	Intron			
192900	-	A G	Intron			
193005	A	T	Intron			
195888	C	T	Intron			
196643	T	C	Intron			
198793	G	A	Intron			
204566	T	A C	Intron			
206094	A	T	Intron			
209224	T	A	Intron			
211364	G	A	Intron			
211561	A	G	Intron			
212346	G	T	Intron			
216030	C	T	Intron			
216597	C	G	Intron			
218212	A	C	Intron			
225907	-	G	Intron			
229343	G	A	Intron			
230880	G	A	Intron			
230881	G	A	Intron			
231039	T	A	Intron			
231100	T	A	Intron			
231711	C	T A	Intron			
232431	C	T	Intron			
232503	G	A	Intron			
233364	A	G	Intron			
233423	C	T	Intron			
251180	C	A	Intron			
251291	T	C	Intron			
256969	-	T	Intron			
260787	A	G	Intron			
261903	-	T	Intron			
262224	T	C	Intron			
263740	C	T	Intron			
283403	A	C	Intron			
285709	T	A	Intron			
288934	-	T	Intron			
288954	-	T	Intron			
292710	G	A	Intron			
295600	G	A C	Intron			
295679	T	C A	Intron			
296323	T	G	Intron			
299119	C	T	Intron			
300404	T	G	Intron			
303906	G	A	Intron			
304170	-	G	Intron			
304657	C	T	Intron			
304771	C	T	Intron			
312311	G	T C	Intron			
313434	T	C	Intron			
313997	-	G	Intron			
322343	T	C	Intron			
322893	C	T	Exon	606	D	D
322905	A	G	Exon	610	K	K
325770	T	C	Beyond ORF(3')			

FIGURE 3, page 107 of 141

Context:

DNA

Position

1139

TATGCCAGGAGGTATGCCAGGGATTGGGGATGCAGAAATAAAGAAGATGTGTTGCGAGTG
CCCAAGTTCACCTCAAACCTCGAGGGGGAGCGTGTGTCAAGTGAACAGATAGTTCTAGAA
TCTAGACAATGCGACACATTCTTGGGTAGGTTTATGGTTGCGCAGAGGAGACTAATGGAA
TGGATGACCTAAAAGTGGACTGGGATGGGGGTGGCAGGGCTGAGTCTGTGAGGGTGGGCG
GGAGGGAACCTAGTCCCAGAGTCTTCTGCAGCTGGACCAGACTACTTAAGCACTGCTGG
[-, G]
TTTAGACTGTCTTTTAAATAAGAGCCGCTAGAAGTGAACCTTCTCATTCTGTCCGTCCCT
AATTCTGTCTTCTCTAAAAGGAACCTTAATCTCATCTTTAAATAAGGAGAATTACTGA
GTGACCTGAAGGACCTTTTTCAGCTGGAAAGTCTGTAAGTCCATATATTTATTTGAACAG
CTTAGTATGGCCAGACGGCATCACTTTTATGACAGTGAAGGGGAAGTAAAAACAAAAGGT
ATATTTAGAGGCTGCTCTCTAGTTGTTTTTCCAGCAGATTTTACTAACGTGTCTTTGGA

1399

GTCTTCTGCAGCTGGACCAGACTACTTAAGCACTGCTGGGTTTAGACTGTCTTTAAAA
TAAGAGCCGCTAGAAGTGAACCTTCTCATTCTGTCCGTCCCTAATTCTGTCTTCTCTAAA
AGGAACCTTAATCTCATCTTTAAATAAGGAGAATTACTGAGTGACCTGAAGGACCTTT
TCAGCTGGAAAGTCTGTAAGTCCATATATTTATTTGAACAGCTTAGTATGGCCAGACGGC
ATCACTTTTATGACAGTGAAGGGGAAGTAAAAACAAAAGGTATATTTAGAGGCTGCTCT
[C, G]
TAGTTGTTTTTCCAGCAGATTTTACTAACGTGTCTTTGGAAGGGAAAAGAAAAAGCTGGT
AACTAATCTCACTGGTATTAGGTACAACCTAAGTATTACATATTTAAGAAGGAAAAT
GTTGTAAATGGGCATTTACTTATGTTCTGTTTTGAGGATTTTGTGGTTAATTGCCCTAG
TAGTTTTTGTGGTTGACGGACACCACCGTAAAGCCCATTGACCATCCTTAAAAACTAG
GTTTTTGTCTCATAGCTTTGGAATTGTTGAATATGAAAACCTAACTTCAAGGTGTAGGCA

1872

TGCCCTAGTAGTTTTTGTGGTTGACGGACACCACCACGTAAAGCCCATTGACCATCCTTA
AAAAGTGGTTTTTGTCTCATAGCTTTGGAATTGTTGAATATGAAAACCTAACTTCAAGG
TGTAGGCACTTTTCAATTTAAATGTTATTTCTATATAGATTTAAACAAAAGCACACTT
TTCTTGATAACTAACAAAACATTTAACATTCTGATGAAATAAAAGTGATTTTACTTTGT
CCTACTCATATGAAACAGTCTGCTTCTTTTTTTGTTTTTGTGTTTTGTTTTGTTTT
[T, -]
GTTGAGATGGAGTCTTACTCTGTGCGCCAGGCTGGAGTGCAGTGGCGAGATCTCACTGCA
AGCTCCGCCTCCTGGGTTACGCTATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGACTG
CAGGCGCCCGCTACAATGCCCGGCTAATTTTTTTGTATTAGACGGGGTTTACCCTGT
GCCAGGATGGTCTCGATCTCCTGACCTCGTGATCCGCCCGCCTTGGCCTCCCAAAGTGCT
GGTACTACAGGCGTGAGCCACTGCGCCCGGCCTAAACAGTCTGCTTTCATAACTGCCA

1876

CTAGTAGTTTTTGTGGTTGACGGACACCACCACGTAAAGCCCATTGACCATCCTTAAAA
CTAGGTTTTTGTCTCATAGCTTTGGAATTGTTGAATATGAAAACCTAACTTCAAGGTGTA
GGCAGTTTTCAATTTAAATGTTATTTCTATATAGATTTAAACAAAAGCACACTTTCT
TGATAACTAACAAAACATTTAACATTCTGATGAAATAAAAGTGATTTTACTTTGTACCTA
CTCATATGAAACAGTCTGCTTTCTTTTTTTGTTTTTGTGTTTTGTTTTGTTTTGTT
[G, -]
AGATGGAGTCTTACTCTGTGCGCCAGGCTGGAGTGCAGTGGCGAGATCTCACTGCAAGCT
CCGCCTCCTGGGTTACGCTATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGACTGCAGG
CGCCCGCTACAATGCCCGGCTAATTTTTTTGTATTAGACGGGGTTTACCCTGTTAGCCA
GGATGGTCTCGATCTCCTGACCTCGTGATCCGCCCGCCTTGGCCTCCCAAAGTGCTGGTA
CTACAGGCGTGAGCCACTGCGCCCGGCCTAAACAGTCTGCTTTCATAACTGCCACGTC

3180

ATCTTTTAACTTTTCATCTTTAAGGAAGTACCAACACTGGATGAATTTGACCATTCTT
AGGAGACTGGAATGTTAAGTTTCTATAAATGAATGAACAGTCTCTCTTGTGTTGGAGCA
ATGCTGAAATCCAAGAGGCAGCTAAGTGTGTGAGTGGATCAACAGCCATTTCCACTTAT
CCAAAGACCTTGATTGCAAGAAGATACGTGCTTCAACAAAACTTGGCAGTGGAAGTTTT
GGAAGTGTCTATCTGGTTTTCAGACAAGAAAGCCAAACGAGGAGAGGAATTGTAAGTAAAA
[G, A]
TGCTTCCTATGAATCTTGAGTAGGCTGCTTTTTGTTTGCAGGTCTTAGCTGATTAGGAAC
ATGGAGCAGGCCAGGTATGGTGCTCATGCCTGTAATCCAGCACTGTGGGTGGCCAAGG
TTGGCAGATCACTTGAGGCGAGGAGTTCAAGACCAGCCTGGCCAACATGGCAAACCCCTG
TCTCTACTAAAAATACAAAAATTAGCCAGGCAGGGTGGTACATGCCTGTGATCTCAGCTA

FIGURE 3, page 108 of 141

CTTGAGGTTGAGGCACAAGAATTGCTTAAACCCAGGAGGTGGAGGTTGCAGTGAGCCGA

7590 GTCTAATTATGTTGTCATAGTCCTAAAAAGATTGTGCTAGTTCTTATTCATTTTATTTTA
TAGTATTGTTAAATTGTCAAAGTATCTTTTCAAAAATCAAACCCAAAAGATTGATCAG
CCCGAAATTACTTTGGCCCTTAACATTAGCATAGTGCATGTAATTTAATAGAAAAGAGA
TATTAAGGAAATAGGTTTACCCTAAAATACATGATTAACTTGAATTAATCATGGCCAC
AGCTACAGTGAATTTCAACATTCATCTTATCAGCATAGAATGTTGGTTATAATGATTTTT
[T, A]
AAAAATTTATCACATTTAAGATATAGTGATCTTACTATGCAGAGTTGATTTTTATGCTGTT
GTCTGTTTTAGTCTGTCAACTATGAAGTATTTAATACAATTTAAATTTTTTTTTTTGAG
TCGGAGTCTCGATTGTCAACCCAGGCTGGAGTGCAGTGGCGCGATCTTGGCTCACTGCAA
GCTCCGCTCCCGGCTTACAGCCATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGACTAC
AGGCGCCCGCCACCACACCCGGCTAATTTTTGTATTTTTAGTAGAGATGGGGTTTACC

9315 TTCTGGAGAAGCTGTATATCTAATGAGAAGTGAATATAACCAAAATAAGCAGGTGGAA
TAATTGGGCAATTACTCGCTTAAACCCAGGTAAGGTCTCTTCTAAGAACTTGACAAAAT
GGAACAGCTGTATGTACATTCTAAGTGGCTATTGTTGTGGGAGCCCTAAGACCCAGTGT
TATCTACTAAATAGCTCTGGATGCACCCCATACAAATATTCATAGGGTACCTCCTTTCC
CAATATTGAAGTAATGTGTATACACTTTATAAAAAGTTCAGATGTGCATAAAGAAGCAG
[T, C]
AAAATAATCTATAATCCTGCCATCCAACCTGTGGTCTTTTCTGTATGCACTGACAAATAT
TCAGTCTTTTAAACGAAACATGGCATTGGTCTAGTCACTTGCCTCTGAGAGGAGATAGGAA
GAGAAGGAGACTTCACTTTTCACTGAACCCCTTCTGTGCATTTGGAATTTGTATCATGT
GCAAGACTGAAACAAAACAAACCTATAAAATAAAGTGAAAAAACCCACATATTCATTCA
ACAAATACTGGTCACCGTTTACTGGTCATCTGGAGCTTGAGTCTGGTACAGTGATTTCTTA

9572 TGTATACACTTTATAAAAAGTTCAGATGTGCATAAAGAAGCAGTAAATAATCTATAATC
CTGCCATCCAACCTGTGGTCTTTTCTGTATGCACTGACAAATATTCAGTCTTTTAAACGAA
ACATGGCATTGGTCCTAGTCATTGCCCTCTGAGAGGAGATAGGAAGAGAAGGAGACTTCAC
TTTTCACTGAACCCCTTCTGTGCATTTGGAATTTGTATCATGTGCAAGACTGAAACAAA
ACAAAACCTATAAAATAAAGTGAAAAAACCCACATATTCATTCAACAAATACTGGTCACC
[G, A]
TTTACTGGTCATCTGGAGCTTGAGTCTGGTACAGTGATTCTTAACCTTGGCCAAACAGTG
GAATCACAATATTTAGAAAGTACAGATGCTTGAGTCATACTCCAGTGAATTCTGTTGGT
CTGGGGTATGGCCAAGGATTTTGTAGAACTTCCAGGTGATTCATATGTGTCACTAGACTT
GAAATATCTCAACTGGAGATAAAACCTACTTACATAATCATAAATAATTTTAGCTGCA
ATAACTTGTGAAAGAAAATCTTGGTCTTGTGAGGTACAATAAACTCATCTTTGCTTGC

11004 CCTCCTGCATAGCTGGGATTACAGGCACCCACCACCGCCAGCTAATTTTTGTATATT
TAGTAGAGACAAGGTTTACCATCTTGGCCAGGCTAGTCTCAAACCTTTAACCTCGTGGT
CCACCTGCCTTGGTCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCATGCCCAGCAT
GAATAATAATTCTTACTAAAATGTGTGGGTTTTTGTAAATATTAATAACACTTTCAATA
ATTCAGATTGTGACTGTAATTTCTGCCATTTAATAGCTGATCGCCTTTAGCAAAGCTAAT
[A, G]
TTTATATATTGTACCTACTAATACCTATTTATGGATATTTCTGTCTGATTTATTTAATCA
TTTTAACATATCTTTACTTTCAATTTTGTAGTCATTTTAAACAAAACATCAATAGATTAA
TGAGTCCAACTTTGAACCAATCTATGTATTCTTATTAAGCTACTATTTCTATATTATG
TCTAGGAGTTCTCTCCAGTGGTTATCTGTGATGGGATAGTGGGTTTATTGAGTGGGACGA
GTTAATTTAATAGGATTGAGTGGTTTACGCCGTGGAGAGTTATGAAAACAATTTGGAAGA

11379 TACTTTCAATTTTGTAGTCATTTTAAACAAAACATCAATAGATTTAATGAGTCCAACCTTG
AACTCAATCTATGTATTCTTATTAAGCTACTATTTCTATATTATGTCTAGGAGTTCTCT
CCAGTGGTTATCTGTGATGGGATAGTGGGTTTATTGAGTGGGACGAGTTAATTTAATAGG
ATTCAGTGGTTTACGCCGTGGAGAGTTATGAAAACAATTTGGAAGAACTAATGATTTCT
TTCTATTTTGCTTGGCAGACCTCAAAACACAGTTTCTTTCAGTTTCTCACAGTTAAAAA
[-, A]
AAAAATCTTCTGCTTATCTTTTAAAGAGAAAGTATAACATGAAAGCATATTAATAATATTA
AAAATTTTAACTAAAATTAATATTAACAAACAGTTCAGATTCTCGGAATCTTGTGCTTA
GGTTCCTCTAGGTAAATATAGAAAGAGTACATTTGAACTTGGACTTCACTTTGGGCTTTG
TCAGTTCTCTGCACACAATAAGGTCAAGCTCTGAGCTTCTGGCCATCTTATATTTAAAG
TTTGGGAGATGGAATGGATAAGGAGAGAAGAAAATGCAAGGGCACATAGTTACTTTGATT

12478 GCTAATGGTTTGGCTAACACTGAATGACATCCCATGAAATATGGAATAGCATTCTTCATT

FIGURE 3, page 109 of 141

TAAATGTATGAGATAGGGGAATATCTAAGCTATTCTAGTAAATAATAGTAATAATAAATG
TAATTGGATATGCTGATCCCTTTACATTGTCATTGTTGACTTCCTAAAATTTTAAAGTG
CAAGATTTTGTGTTAAGCCTATTAAGTTATTGTATCTCATTTATTCAATAAAATAAGTA
TTTTAGGATGAGTGCAAAAAATGCAAGAGCAAAATTTGATGGGTGTAGTCTACCTTGTAG
[G, A]
TTTTTTTCTTCCCCTAAAAGGGCTTTTTTCATCGAGATGTTTATAATAAAAAAGTGAG
CTGATTTTTAATAGAGTCCAGAGGAACCTCAATAACCAAATCCAGAATTCTTAATGGTTG
ATGAATATTAGAATATTGAGTCAGCTAACTTTAATTTCTGACCCCAAAACAAGCACAAC
ACCCTCAAGTATAATCTGTAAC TAGCCCTTCTTGCTGTTGTTCTACACAAGCAGCCTTT
TGGGGAGAATATTTCTCCAACAACCTTTTGGTGCATCCGGCAGCCAGCTCTCTTCTCTGG
12486 TTTGGCTAACACTGAATGACATCCCATGAAATATGGAATAGCATTCTTCATTTAAATGTA
TGAGATAGGGGAATATCTAAGCTATTCTAGTAAATAATAGTAATAATAAATGTAATTGGA
TATGCTGATCCCTTTACATTGTCATTGTTGACTTCCTAAAATTTTAAAGTGCAAGATTT
TTGTGTTAAGCCTATTAAGTTATTGTATCTCATTTATTCAATAAAATAAGTATTTAGGA
TGAGTGCAAAAAATGCAAGAGCAAAATTTGATGGGTGTAGTCTACCTTGTAGGTTTTTTT
[-, T]
CCTTCCCCTAAAAGGGCTTTTTTCATCGAGATGTTTATAATAAAAAAGTGAGCTGATTTT
TAATAGAGTCCAGAGGAACCTCAATAACCAAATCCAGAATTCTTAATGGTTGATGAATAT
TAGAATATTGAGTCAGCTAACTTTAATTTCTGACCCCAAAACAAGCACAACACCCTCAA
GTATAATCTGTAAC TAGCCCTTCTTGCTGTTGTTCTACACAAGCAGCCTTTTGGGGAGA
ATATTTCTCCAACAACCTTTTGGTGCATCCGGCAGCCAGCTCTCTTCTTGGCAGACAGC
13904 AAAAAACACCCCAAAGTTTTAGTTATTAAGAAAGCAAACTAAGCCTGATGAAATGTGT
GGGGGTGATGGATATGCTCATTATCATGATTGTAGAGATGGTGTGATGTTTCATGGGTAT
ATACATATATCAAAATTTGGCAAATTATACACTTAAAATATGTGCAGTGTATTATGTCAA
TTGTACCTTAACAATTGTGTTTAGAAAAAGCAAAACCCTGTACCATGATATATGAAAC
CCTTAAGATTGTTAAACTGGCTGAATTTGCAGTTACTAATGATAATCATTATGAAACTTG
[A, G]
TACTTTCAGCTGAGTGTGCTTTTTAATCTTGGGTTTCATACCAGCCAATTTTATTGTTTT
TAGCTCAGAGAAAAATCATAGGCTTTGTTTTTGGTACCTTTATTTGGGCAAGTGAAGAAGG
AAGATCAAAATGTAGTTGATAATATTGTCTACATACTAGGTTTCCAACCTTTCTAAGAGT
GGAAAATTTGGAACATTGAATTTCTGATTAGAATGTGTTTGGGTGTCAATTTTCTCAGTC
TCTCCACATGCAGCAGTCACTTAGCATTTTAATTAAAGTTTGGTTGATGTTTCCACTTC
25445 ATGGAGTAGAGTAAACATTTGCATGATTTTTGACTTTATAATATAATTTTTGATAGGTT
ACACATTCACATGGCTCAAAAAACATCAAAAGATCAAGTTTCGAGTTTCTCCTCATCCTT
CTCTCCCTTTTTGAGTTCTCATCCTCTTCCCCAAAAGGTAACCACTGTTAAGAGTTTC
TTCTGGATCCTTTTAGAATTGCTTTATGCACACATTAGCAACTTAAGAATACAGAGTCTT
ATTTTTCCCTTTCTGATAAAAGCTAGCATATTATACACTTCTGGTTTTTTTTTGTTTTTT
[T, -]
TTTTTTTTTGCTTTTTTCATATGACACAATATCTTGGAGATATTTCCATGTTAGTGTGTAG
AACATTTCCCATTCCTTTTTTTTTTAAACAGCTCAATAGCATGTTCCATGGTGTGTTGT
AGTATAATTTATTTAACCATTTCCTGTTTCATGCGCATTTGAGTTATATTAAATCTTTTC
TTATTAAAAATATCACTGCAGTGGATAACCCTGAACATTTGTCAATTCACAAACATGCCA
CTATTTCTGTCATGAATTTTAAAGATAAAACATAACATTTCAAGAAATGTGCTGTTTTTAG
26805 GAACAGTAGATGGTGGTAATGTAACATGCAGACCAACTATTAAGACATGTCAACATTTCC
AATGGCAGCATTAATTCAAGGTCGAAAATGTCTTAATTTAATTACAGTCTACCAGTACTT
TTAATTTACCGGCTAAATTAATAAAAGGCTAAACATAGGTATTTAACAAACTTTTAATT
TCTCCCTAGGAAAAGCAGAAATTTGGCTGAGAAATAAATCTGAAGAAATCTTTTTATCTTC
ACAGACCATTGTAAC TGGCATGAGCCAGATCTGGTTTTTCTTGCCATCCATGTATTAGAT
[T, A]
GATGTTTCTAGCTTGTGTGTACACAAAGGTATATGTGTATTCTTTCTTTTTTAAAGAA
AAAGGCATCAATTTAACCAACTTAACTCTCCAGTGTCCATGAGAATGGCAAAGAGCAGT
TTCAGTCTGAAGCATCTGAAGCAGCCACCGCCTTTGTACTCCAGGAAC TGACATTTGGGC
TGAAAATAGGATGTGAATGCCAATAGCTCTATTAGAAGGGCCAATGGGATGAGAGATCAG
GGTCTCTTAGAAGTTGAGAGGGATCTGAGCCACTTCCATTTCTTTTGAAGTCTATTTAACT
28010 GATGATAAATCTAGAGGAACTGCAGGGAGTGGAGGTTCTTCCGTGAAGGATATCTCAACT
TACCTGATGGAGGGGAACTATGGCTCATATCTGCAATCCCAACATTTTGGGAGGCTGAGG
TGGGTGGATCGCTTGAGCCAGGAGGTGGAGAGCAGCCTGGCCATTTATGGTGAAACCCCTG
TCTTTACGAAAAAATAAAAAATTAGCCAGGCATGGTGGCACATGCCGTAGTCCCAGC

FIGURE 3, page 110 of 141

TGTAGACATGGTCTCCTTGCCATGTTAGGAGTTAGGTGTTTTTCAGAGAGACTGTGTTTT
CCAGATTTTCAGCTTCATGCAGTGCCTGAAGATATTTTATCTCTAGCAAGGGTCAGGAC
ACTCACTGTGTTTTTCCCTTATCATGGTTAGATATGAAGGACCTCAGGGGAAATCATCCA
CTTGGGGCCGAAAAGCATCCAGACACTCTCATTTTGGTTTTCTCTGGGGAGCTCATGGTT

31808 GATATGCGGCGTTATTTCTGAGGGCTCTGTTCTGTTCCATTGATCTATGTCTCTGTTTTG
GTACCAGTACCATGCTGTTTTGGTTACTGTAGCCTTGTAGTATAGTTTGAAGTCAGGTAG
CATGATGCCTCCAGCTTTGTTCTTTTGGCTTAGGACTGACTTGGCGATGCGGGCTCTTTT
TTGGTTCCATATGAACCTTAAAGTAGTTTTTCCAATTCTGTGAAGAAAGTCATTGGTAG
CTTGATGGGGATGGCATTGAATCTAGTTTTAGAGAGAGCGATACCAGCCCCAGATTAGAG
[C, T]
TGCTTGGACATTGAGGAATCTCCCTTTAGGCTGAGGACTAAAAGAAAGCTGTGGGTGTA
ATATCTAGATACTGCATGTCATTGTATTTTTATGTAAATACAACCCATTGACTTATCTTCA
TCTCTTTATGCCCTCAAGATATCACAGTTCCCTTAAGAGATTCACTACAGTCAACTTTA
TGCCTCAAGATATCACAGTTCCCTTAAGAGATTCAATACAGTATAGACAAGAGAGGGA
AATCAGCCCTAATTTAGCTGCTAAGATAGTCATACCTATTAGCTCTCCCATCCTCACAG

32807 GAGGTACTTTTATCTGGAGCTGGAGAATAGAATACAGAAAGAAATTGTATATGGTAATAG
TAGCATGGTGTATGCATATGCCCCAAACCCATCAAATTGTATACATTAAGTGTGCAGGTTT
TTTGGTATATAAATTATATCTCAATAAAGTTGTTATAAAGAGGAGAAATATGTACATTAA
TTTTTGTGTTTTACACATATTTTTGATGTTACTGTAAACTATTATGACTTAATATTCAT
ATTTTCTGAACCTTAGAAATGTAACCCATAACAAATAAAACCTGGTTTTTGAACATGTAA
[T, C]
AAAAGTCCCATCAGAGGCACACCATTCTGATGCCCCTTAAATGTACAGATATGTGCAT
TTAATTATTCCATATAGCCCTTTCAAGAAGCCAAATTAAGCTCCATCTACATAGTGTGAA
GTATATGCGTTTTAATGGACTTGTATCAAAGTATGCACACAATTGACTCCCATTGCAATTG
ACAGATGATGTTTTAGTTCTTTTAAAGTGTCTTGTAGCCTCCTGACTTCCCCATCTGCA
ACCACCATCTTGACCTCTTTTCAAGAACTTACTGTATTGACAGACACATAGAGGGTTGA

34531 TGTGCTTATTGGCCATGTGTATATCTTCTTGGGAACTGTATTGTTTGTTTTTATATT
CCCAGTCCCCCATCCAGAACTGGGCATACTGTAGGGACTCAAAAATGAAAGTCATAAATC
ACTTGTAGCAGAATCACCTACAGCTCCGAGAACTCAGCTGAAACCTGCTATAGATCAAAC
TTTCCACACTTAGGCCTAGAGATCTACATTTAAACAAGATCCTGGGGGTCTGTCTTCACT
CTGAAGTTTGTAGTAGCATTGCCTTAACTAAAGATTTTTTAAACATCTGAAGAGCTTCAGT
[A, G]
TATTCAGAGGTAAACATGATCTATGCTGTTCTAGACTGCAGAAGTGGGACTAGCAGACAA
GAATCACAGGCAGGAGCACATTGCCTCATTAAAGTGGTGTCAAGTTGAGTTAGCTGGCCC
ATCTGCCACAGAAGGAAGTCTTGCAATTGGGTAGAATGTAGGGCAGGTAGGGCAGGATGTA
GTCTTTCTGGGGATGTTATGCTATTTCTATACCTGGTAGACCCCATCTAATTTTTATTCT
GCCTTATGATCAGATAGTGTATCTCGGTGTTGGCTATATATAAAATGACAAAGTCTCTTC

35318 CTTAGCATATTGACCGAGCCCCAAAAGGAATTTATTATAAATTTAATGGGTGGGTACAG
ATTCACCAAGGATTTCTGGAGGGCCAGACTAAGGACAACCTCCCTGCCATCACTGGTGCT
GGGGCCCATGGCACTGCTGCCTAGGAACCTCCATCGTGTGCTGCCTCTGCTACCACCAGATG
GCCTTCTTGAGGCCCTCATTTCTGATGTCATCAGCACCCAATTCTGAGTCCAGGGCATC
AGACTGTAGCGTACACCATGTTCAATCAAAGATAACTGAGTTGATAACGAATGAATTCA
[A, G]
TGGGCACTAGTAACAGTAGGCACCAAAGAGCAAGTAAACAAGTAAAAACAACAAACAA
ATAAAACCCAAAACCTCCTCTAGGAGCTTACATTTTAGGGGAAGAGCTGAGGCACACAA
AAGAGCAAGTAAACAAGTAAACCAAGTAAACCAAGTAAACCAAGTAAACCAAGTAAACCA
TGTTGTAGCAGTATAACTACAGTGTGTGGAGTAATTTTCATATTGTTGTGTAACCTGGGA
ATAGATGTACATGGCAGCTCCTATTTTCCCTGGAACCTCTGATCACCACAAACAGGTATTCA

35463 AACTCCATCGTGCTGCCTCTGCTACCACCACAGTGGCCTTCTTGAGGCCCTCATTCTTG
ATGTCATCAGCACCAATTCTGAGTCCAGGGCATCAGACTGTAGCGTACACCATGTTCAA
TCAAAAGATAACTGAGTTGATAACGAATGAATTCATGGGCACTAGTAACAGTAGGCACC
AAAGAGCAAGTAAACAAGTAAACCAAGTAAACCAAGTAAACCAAGTAAACCAAGTAAACCA
GAGCTTACATTTTAGGGGAAGAGCTGAGGCACACAAAACCTTGTAGGCAACAACATTCCC
[T, C]
ATACCAAGGAACACGATTTAGGGTGACAGAACATGTGTGTAGCAGTATAACTACAGTGT
GTGGAGTAATTTTATATTGTTGTGTAACTTGGGAATAGATGTACATGGCAGCTCCTATT
TTCCCTGGAACCTCTGATCACCACAAACAGGTATTCAACCTTGTGATCTGAACCGGAGAAC
TTCCAGTTTAAAGGCTAAAAATGCCCTTGCAGACTTCTCTCCTCTGCTGCCCCCTCAT

FIGURE 3, page 112 of 141

ACTGTAGCCTGACTTTTTAAGAAACCAACTTTGTTGAAGAATAATTTATAGACAATAAAA

35477 GCCTCTGCTACCACCACAGTGGCCTTCTTGAGGCCCTCATTCTTGATGTCATCAGCACC
CAATTCTGAGTCCAGGGCATCAGACTGTAGCGTACACCATGTTCAATCAAAAGATAACTG
AGTTGATAACGAATGAATTCAATGGGCACTAGTAACAGTAGGCACCAAGAGCAAGTAAA
ACAAGTAAAAAACAAACAATAATAAAACCCAAAACCTCCTCTAGGAGCTTACATTTTA
GGGGAAGAGCTGAGGCACACAAAACCTTGTAGGCAACAACATTCCCTATACCAAGGAACA
[C, T]
GATTTAGGGTGACAGAACATGTGTGTAGCAGTATAACTACAGTGTGTGGAGTAATTTTC
ATATTGTTGTGTAACCTTGGGAATAGATGTACATGGCAGCTCCTATTTTCCCTGGAACTCT
GATCACCAACAAGGTATTCAACCTTGTGATCTGAACCGGAGAACCTTCCAGGTAAAGG
CTAAAAATGCCTTTGCAGACTTTCTCTCCTCTGCTGCCCTCTCATTACTGTAGCCTGACT
TTTTAAGAAACCAACTTTGTTGAAGAATAATTTATAGACAATAAAAGATACCCATTTGAA

37050 TGAATACAAGACAACCTCTTGGAGGGCAACTGTCCTTTTTCTCAGATGTAGTAGAAAGGAA
GGGGACAGAGTGGGAAACAGAAGCAAGAAAAAGGATACAGAGATAGGATCATGAATAGAG
GAGGTGGATGGGTGAGGTTTGGGAATAATGATTAATACAGTCCCGATAGATAGGGTCCAG
TTGATAGAATACCTTGAAGTGGAGGCTTAATAAGTTTGTCTGATGGGGAATACAAGAGA
AGATCTTTAGCAAGAGAGTGACATAAAAGTAGTATTTGAAAAATGATTATCCTTGAGCTT
[A, G]
AGGAAATCATAGAGTAACCTACCAGCCAGGAAATTTACTACAAGTGTAATTTACCCGTA
TGACCTAGCAATTCATTCTAGGTACATACCCAAAAGACATAAAAACATATATCCACTC
AAAACCTTGTACACAAATGTTTACAGCAGCATTATTCATAATAACCAAAAGGTAGAAACA
ACCCAGTGTCCATCAACTGATAAATGGATAAACAAAATATGGTATATCCATACAATAGA
ATATTATTTAGCCATGAGAAGCCATGAAATACTGATACATGCTACAGTCTGGATAAACCT

37470 CAAAACCTTGTACACAAATGTTTACAGCAGCATTATTCATAATAACCAAAAGGTAGAAAC
AACCCAAGTGTCCATCAACTGATAAATGGATAAACAAAATATGGTATATCCATACAATAG
AATATATTTAGCCATGAGAAGCCATGAAATACTGATACATGCTACAGTCTGGATAAAC
TTGAAAACAATATGCTAAGTGGAGAAGACAGTCACAAAAGACTACATATTCTATGATTC
AACTTATATGAAATATCAAGCAGGCCAAACCCACAGAAAGAAAAGTGGTTGCCAGGGGCTA
[T, G]
GGAGAGTGGGGATGGGTAGTGATTGCTGATGGATAAGGGATTTCTTTGGGGACTGTGTTA
GTTTTCCAGGGCTGCCATAATGAAATGCCACAGACTAGGTGGTTTGAATAACAGAAATTT
ATTTTCTCATGTTCTGGAGGCCGAAAGTCCAAGAATAAGGTGCCAGCAGGGTGATTTTTT
TCTGAGGCTGCTCTCCTTGGCTTGTAGATGGCCACCTCCTTGCTCTGTTTTACATGGCC
TTTCTGTGTTTGTGCAAGCGTGTCCCTGGTCTCTCCCTCTCCTTATAAGAACAACACTTA

37481 ACACAAATGTTTACAGCAGCATTATTCATAATAACCAAAAGGTAGAAACAACCCAAGTGT
CCATCAACTGATAAATGGATAAACAAAATATGGTATATCCATACAATAGAATATTATTTA
GCCATGAGAAGCCATGAAATACTGATACATGCTACAGTCTGGATAAACCTTGAAAACAAT
ATGCTAAGTGGAGAAGACAGTCACAAAAGACTACATATTCTATGATTCAACTTATATGA
AATATCAAGCAGGCAACCCACAGAAAGAAAAGTGGTTGCCAGGGGCTATGGAGAGTGGG
[G, A]
ATGGGTAGTGATTGCTGATGGATAAGGGATTTCTTTGGGGACTGTGTTAGTTTTCCAGGG
CTGCCATAATGAAATGCCACAGACTAGGTGGTTTGAATAACAGAAATTTATTTTCTCATG
TTCTGGAGGCGGAAAGTCCAAGAATAAGGTGCCAGCAGGGTGATTTTTTCTGAGGCTGC
TCTCCTTGGCTTGTAGATGGCCACCTCCTTGCTCTGTTTTACATGGCCTTTCTGTGTTT
GTGCAAGCGTGTCCCTGGTCTCTCCCTCTCCTTATAAGAACAACACTTATATAGGATTAG

37499 GCATTATTCATAATAACCAAAAGGTAGAAACAACCCAAGTGTCCATCAACTGATAAATGG
ATAAACAAAATATGGTATATCCATACAATAGAATATTATTTAGCCATGAGAAGCCATGAA
ATACTGATACATGCTACAGTCTGGATAAACCTTGAAAACAATATGCTAAGTGGAGAAGA
CAGTCACAAAAGACTACATATTCTATGATTCAACTTATATGAAATATCAAGCAGGCAAAC
CCACAGAAAGAAAAGTGGTTGCCAGGGGCTATGGAGAGTGGGGATGGGTAGTGATTGCTG
[A, T]
TGGATAAGGGATTTCTTTGGGGACTGTGTTAGTTTTCCAGGGCTGCCATAATGAAATGCC
ACAGACTAGTGGTTTGAATAACAGAAATTTATTTTCTCATGTTCTGGAGGCCGAAAGTC
CAAGAATAAGGCTGCCAGCAGGGTGATTTTTTCTGAGGCTGCTCTCCTTGGCTTGTAGAT
GGCCACCTCTTGCTCTGTTTTACATGGCCTTTCTGTGTTTGTGCAAGCGTGTCCCTGG
TCTCTCCCTCTCCTTATAAGAACAACACTTATATAGGATTAGGGCCCACTCTGCTGGCCT

40178 CTGTCTGTAATCCTAGCACTTTGAGAGGTCAAGGCGGGCTGATCACTTGAGGTTAGAAGT

TCAAGACCAGCCTGGCCAACATGGTGAAACCCCATATCTACTAAAAAAAATAAATACAA
AAATTAGCCAGGCATGGTGGCACATGCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAG
GAGAATCACTTGAACCTGGGAGGCGGAGGTTGCAGTAAGCCAAGATGACACCACCACACT
CCAGCCTGGGCGACAGAGCCAGACTTGTCTCAAAAAAAAAAAAAAAAAAGAAAAGAAAA
[-, A, G]
AGGATTTACAAGTGGGATCTCAGTTTCATTATTATTGAGTGTGGTTTGTCACTTAACAGA
CTCTGTGTCTTAATCTCTCTGTGTCTTAGTTTCTTTATTTCAAGAGGATTTTAATAGTTT
CCTAGCACAGTACATGGTGCCAAATAACTGTCTCATGTATGGCGCTTACTATTGCCATAA
TCATCACCAGTATCACTATTTTAGTGGGTAGAGGTTTCTCATGATTATCTCATATCTTG
GTCTTTGATTACCTCTTTAGGATATTGATTTTCATCCTTTTAAGGTGCATGACAGTTTCTT

40178 CTGTCTGTAATCCTAGCACTTTGAGAGGTCAAGGCGGGCTGATCACTTGAGGTTAGAAGT
TCAAGACCAGCCTGGCCAACATGGTGAAACCCCATATCTACTAAAAAAAATAAATACAA
AAATTAGCCAGGCATGGTGGCACATGCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAG
GAGAATCACTTGAACCTGGGAGGCGGAGGTTGCAGTAAGCCAAGATGACACCACCACACT
CCAGCCTGGGCGACAGAGCCAGACTTGTCTCAAAAAAAAAAAAAAAAAAGAAAAGAAAA
[G, A]
AGGATTTACAAGTGGGATCTCAGTTTCATTATTATTGAGTGTGGTTTGTCACTTAACAGA
CTCTGTGTCTTAATCTCTCTGTGTCTTAGTTTCTTTATTTCAAGAGGATTTTAATAGTTT
CCTAGCACAGTACATGGTGCCAAATAACTGTCTCATGTATGGCGCTTACTATTGCCATAA
TCATCACCAGTATCACTATTTTAGTGGGTAGAGGTTTCTCATGATTATCTCATATCTTG
GTCTTTGATTACCTCTTTAGGATATTGATTTTCATCCTTTTAAGGTGCATGACAGTTTCTT

40787 TAATTATTTGTCTCTGTCTCTGCCACTGGATTGCAAAGTCCTTGAAGGCAGAGGCTGTGCC
TGTGACAAGTAAAGTACCTTCCACAGATCAGGTGCCCCATACACGTGCACTGAATTTAGA
AACTGGAATTAAGGTAATAGTTGAGAAGCTTTTCTTAAGTTAGACATCAAAGTGCATTAT
TTCATATGTAAGTTGGAATTCTGTTTCTGAATGAATTCATTCAATAGAACCACCTGATGT
TCTCCTTGGGAAACATCTTCACTGTTATGTGACTAAAATTAAACTGGCTTATGACACTC
[A, G]
GGATCCAAAGATTGAAATACCCCTCGTAATAGGCAAGAATTGTATCACATTACCATCAAC
AACAGCAATAGTACTAATAGTAATAATAAAAAATACCTTTCAAGAAAGTTTGAATTTAAATT
TGAAGCTCAATCATAGCAATAATTTCTGGCCAGCATATTTGTGTCTTTTCCCTATTGTG
GTTCTATTCTTGCTGGTCTTAATTTTTTGTGTATTATGTAAGTTATGTCAAATTGTCTG
TGAAATGAGGCTGAGTATAAATACATTAAGGTAATAAATTATGTAATAAGAGATGTTCAA

44582 AATCCATTTCAAACCTGGAAAAGAAGCTGAATATGGGGGGAACACATTAAGAAAATTTGG
TAGCTTTGTGCTTCTCTGGGCCAGGCCATTACAATGGGTATTATCATTCTCTGAGATA
TTGTGAAACATCAGAGCAAAACCTTTTTCAGGTATGAATATCTGCCATTTTTTTGTGTC
TATGCTAATGTTATTATCAGCTCCCACGGGTAATTCAGCTTCCAGATCAAAGCTATTCCA
GCAAGTATGTTAGCAAGCAAATTTTTATAAACTTGCATTTTTTAGTACTTTTTTATCTCCT
[G, A]
TCACTAGAGAATATAGAAAAAGGTATATTTATTACTGTTTGTAAAGTGTATTTTCTTTT
TCTTTTCTTTTTTGGCAGGAGAGAGTGAAAACCAATATTTTAAGAATTCTTTTTTCTT
GGTCTTTTCAACTCAGTATTTTATTTTAAATCTTTATATTTTTTTGATTGGCGAATCATC
CATTCCCTTGCTTCACTCTTTTCTTTCTTGCTCTCATTTTAGATTATCTTCTGTTTGC
TATTATTACTTCTATATCATCACCTAAGGGAAGAAGGATAACACTGGTGAATTTTAATA

45615 ACTACATTCTCTACCCCTGATTCTAATCTCTTCTTCTTTAAACATCTCCTCTTCCTTCTT
GTAGCAAAGTGGTAGTATCAGGAAATGGCTGATGCTATCAAATGGCTTAAACAATAAGA
AACTCTTGTCTCTATCAAGAAGTCTAGAGAGAGAGCAATTCTGGTTTGACTAATTCAG
CAGCTGAGCAACATCATCAGGGACGTTGGGGCCTTCTCTTACCTCTCCATGTTTCTGC
CACTCATGTTAGGGTGGCTTACTTCATGGCTCCAGCTGGCTGCCATAGTTCAAGGAGTCA
[C, A]
ATGCAGATGATCACATGCAGAGGTGGATTAAAGAAGAGTTTCTCTCATGCTTCTCTTTT
TATCAGTGAGGAACATCTTTTCCAGACCAATTATGATTACCACAGGAAGTGGGGAGGA
TCCTCCTTTCCAGAGCATATGATGGTAGGGGTGTTGGGGGATGACTGTGTGGGGTAGGCA
TGCATCAGTGTCTTCTACAATAAGGAGGCCACAATATTCGATGACTCTGCCCATCTGTAT
AAATAAGAAAAATAGAATTGCTTGACCATTTGTCTCAGGTTGTGGGGGAGAAAGATAGGG

46091 AGGCAGTCATCAGTGT'TTCTCACAATAAGGAGGCCACAATATTCGATGACTCTGCCCATC
TGTATAAATAAGAAAAATAGAATTGCTTGACCATTTGTCTCAGGTTGTGGGGGAGAAAGA
TAGGGACAAGGAGGAGCTGTATATGATTTTAAGGGGAAGTTAGAATTGACCCAAGGCATC
CTTGGTTGTAAAGAGAAC'TTTTAGAGAAGTAAATAGAAAGAAGTTCCAGAAAGCTGTCTC

FIGURE 3, page 114 of 141

CTCCATGAAGGGAATCCACTCATATTGTAGGTAAAAGAAGAGGGAAGGGCAATTTTTTCT
[C, T]
CACTCTTCTACGAGACAGCCCCAGCAGCTTTTATGGAGGCTGTGACTTAGAAATGGGGG
GAAATGGCTGTCATGTTGTGAGGGGCACAAATGCACAAGCTTTTTTAACACTGCCTGAACA
AATGCAGACTTTTGTGCTCCCGAGTGAATTAACATGCTCTGATGCATTTTTTTGGCTT
GGCTATCAACTCTTTGGTCATGTGCTTGGGGAAGGGCTTTGCATGACACAGCGGTGAGAC
ATTTTATCTTTCTCCATGTGACTTCCAGGAAGCCCTCTAGGGAAATGCAGGACATGGTC

47844 GCTTAATGGGAGGGTTCCTCATGCTTATTTTAAAGATCTTGCTATGTAAAGCTTAAATAT
TTTTTGGAAAAATGGGGAATAAATGGGTGGAGAGGAAGGAAGAAAGAAAACAAGGAGGG
AAGGAGAGGTTTATGAACCTGACAGTTTTACAGTTTTATATGTCTCTTAAAAAATCTCC
TCCTCCCTGTAACATTTTAAATCCACATTCCATAATGTATAGTGTGATTTTGTGTATGT
TATGTATGTGTTTACTCTAAGGAAATATACAGCATATATAAAATATTGTAATATATAATA
[T, C]
AATGTATAAAGTCATTTTTTAAAGAGTCATATGCTGATTAACTTTCATAGCCTATTTCAG
GTAATGCAAAATGCAGACACTCTTCTACTGGATATTGACTTATACAGGGCAAATGGTAAAG
AATGATACATTCAATTTATTTTGTCTGCTTGGCTCCACCCAGGGAAAAGGCAATGCAGCAA
GTATAAAGCGGTTTGCATTTGCAAAAGTGAACATCCTGAAGCTCTAGTCCGTGGATTTTG
CCTTTTCTTCTGCTCAAAGAAAGGTTAGGAATCCTACTGCCCACCCCAAGCTCTATTTT

48013 AAAAATACTCCTCCTCCCTGTAACATTTTAAATCCACATTCCATAATGTATAGTGTGATT
TTGTGTATGTGTATGTATGTGTTTACTCTAAGGAAATATACAGCATATATAAAATATTGT
AATATATAATATAATGTATAAAGTCATTTTTTAAAGAGTCATATGCTGATTAACTTTCA
TAGCCTATTTCAGGTAATGCAAAATGCAGACACTCTTCTACTGGATATTGACTTATACAGGG
CAAATGGTAAAGAATGATACATTCAATTTATTTTGTCTGCTTGAGCTCCACCCAGGGAAAA
[G, T]
CAATGCAGCAAGTATAAAGCGGTTTGCATTTGCAAAAGTGAACATCCTGAAGCTCTAGTC
CGTGGATTTTGCCTTTTCTTCTGCTCAAAGAAAGGTTAGGAATCCTACTGCCCACCCCA
AGCTCTATTTTAGCATTTATCATGAAGTTGTCCAACATTTTATATACTTGTGGCCTCCC
CATGGGACTGAGCTCTCTTGGAGGGCAGGAGTTTGTCTTTTTCGTCTTATATCTCCAG
CACATGGCATGGTATTTGGCACATAGAAGATAGTTAATAGACAGTAAAGTAACAGAAGCG

48072 TTTGTGTATGTGTATGTATGTGTTTACTCTAAGGAAATATACAGCATATATAAAATATTG
TAATATATAATATAATGTATAAAGTCATTTTTTAAAGAGTCATATGCTGATTAACTTTC
ATAGCCTATTTCAGGTAATGCAAAATGCAGACACTCTTCTACTGGATATTGACTTATACAGG
GCAAATGGTAAAGAATGATACATTCAATTTATTTTGTCTGCTTGAGCTCCACCCAGGGAAAA
GGCAATGCAGCAAGTATAAAGCGGTTTGCATTTGCAAAAGTGAACATCCTGAAGCTCTAG
[T, A]
CCGTGGATTTTGCCTTTTCTTCTGCTCAAAGAAAGGTTAGGAATCCTACTGCCCACCCCA
CAGCTCTATTTTAGCATTTATCATGAAGTTGTCCAACATTTTATATACTTGTGGCCTCC
CCATGGGACTGAGCTCTCTTGGAGGGCAGGAGTTTGTCTTTTTCGTCTTATATCTCCA
GCACATGGCATGGTATTTGGCACATAGAAGATAGTTAATAGACAGTAAAGTAACAGAAGC
GTGAGATTTCTGCTCAAAGTCTTTGGCAGTTTGTTCCTCAGTTGCTGATGTCTGCCAT

50802 TCTGATAAAATAAATGTCTGTGTCATGTTATTTAGGAGGGGTGACAGGCTGGAATCACTGAG
CAAGTGACAAACTGTCCCTTACTTGGTAAGTTTCCATGCTGTCTTTGGCTGATACAGAT
CTCGTATTAAGTGATATGCAATGAGAGTTTCTCTGTGCTGAGCTCAGTGACGTGATTTTAGG
TAAGGAAGGTGAACGTCTCCGCATCAGCTAGAGAGATTATAATAGATATCACCTGTCTTA
ATAGCCCTACCTTCATCTGCTAAACTGTGGACAAATGAGATTTTATGCTTTATCATCAAG
[G, T]
TGCCAGACGGGGCTCAGGTATTTACATTTTATATGTAAAATTGCTCATGCTCTGCTGCAC
AATAGTTGGTGTGTTGCAAGGAAAAATAAGTATCCTGAAGCTTTTATAGCATTTTATTCCT
TCACAGCAAGAGAATATTGCAAGTTGTAAGACTTTTATATTGTCATGCTTAACCACTGTG
ACTTTTATAACTGCATGCTAGCTGGGGTACAGTAAATTACTGAAAAGCTCTATGAAGATG
TCTTTGTGCTTCGCCTGCTGCTTTGTAACTCTCAGTAGTTAAAAAAGTGTCTTGTATGT

53305 CTTTCATTTATACATGTTAGAAATACTAAATATCTCTATTAATGTTTGTAGTTAATTTTT
CCTGTTAAATACTGGTAGTAATGAAGTATGATATGCCAAGGATAGTTTTAAAAAGAAAA
AAATAAATATTGCTCCTATTGATATTAAGTCGATATATTTGGAAAAATTTAAGCTGAGAG
AGAGAAGCATGCCTGTGAGTGTGTGTAATACATGTAATACATACACAGAGGCAAGAGAG
AGACACAGAAAGAGGCAGAGACACAGAAGGAAAGATAGGCAAGAAAGAAATAAGATACAG
[G, A]
GAGACAGAGTGATGGATTACATATATATATGTGTGTGTGTGTTGTGTGTGTGTGTGTGT

FIGURE 3, page 115 of 141

GTGTGTGTGTGTGTGTATGAACACACATAGAAAGAGACAGACAGAAATAGATAACTATAA
GAGAAACCAAGAGACACTGAAACATCTAGAGAGGTGGAGGAAGGGCCACCCAGCAATAT
TGCTCAAGATTAGTTCCATGGCTGCCCTTATAGAACTGTAGGATACACAGATGAGGAGGT
CAGAGGCCTTGGGGAAGCAGGACAGGAAAACAGGCCAGGTCCCACCAGGAGACACAGTG

53379 GTAGTAATGAAGTATGATATGCCAAGGATAGTTTAAAAAGAAAATAAATAAATATTGCT
CCTATTGATATTAAGTCGATATATTTGGAAAATTTTAAGCTGAGAGAGAGAAGCATGCCT
GTGAGTGTGTGTAATACATGTAAATACATACACAGAGGCAAAGAGAGACACAGAAAGAG
GCAGAGACACAGAAGGAAAGATAGGCAAAGAAAGAATAAGATACAGGGAGACAGAGTGAT
GGATTACATATATATATGT
[T, -]
GTATGAACACACATAGAAAGAGACAGACAGAAATAGATAACTATAAGAGAAACCAAGAGA
CACTGAAACATCTAGAGAGGTGGAGGAAGGGCCACCCAGCAATATTGCTCAAGATTAGT
TCCATGGCTGCCCTTATAGAACTGTAGGATACACAGATGAGGAGGTGAGAGGCCTTGGGG
AAGCAGGACAGGAAAACAGGCCAGGTCCCACCAGGAGACACAGTGTGATAATAGGCAAT
ACCAGATATATGAGTAGGTACAACTGGGCATTAATTAATGGCTCTGTACCCTTGATG

56233 AACCATATGTGGCTCCTCGCTACCGTATTAGACATACATAGTATATGTTGCTATAACTTT
CTTTCCCTGTATTAATTGAAAAATTTATAATTTTAATGTAATTTTAACTACCAGAAAT
GTTACAAGAGTAACACAATGAACCTCCATATGCCCTTTATCCAGATTCCCAAATTGTTAT
TTTTCCACATTTGCTTTATCTTCTACCTACATTTTTTAATGAACCATTTGAGAATAAGT
TTCAGACATGATGCTCCTTTGTCTAAATATAATACAGCTGTGAGTATTTTCTAAGACCA
[A, G]
GGACATTCTTTTATGTAACCATAGTACAGTAATCAAAATCAGGAAATCAACAGTGATACA
ATGCTAGTATGAAACCCAGTGGTTCTCAAAGTGTGACCCGAGACCAGTATCATCAGCATC
ACTTGGGAACCTTGCTAGAAATACAAATCTTTGCCCTCTACCCAGCCAGCTGCATTGAAT
CAGAAATCTGGGGGTGGGGTCTGGCAATCTGTGTTTTGACAAGCCTGCCAAATGAGCC
CAAAGCATACTGAATTCGAGAATCACCCATCTAATTCACAGTCTATATTGTCTGAATTA

56453 TGAACCATTTGAGAATAAGTTTCAGACATGATGCTCCTTTGTCTAAATATAATACAGCT
GTGAGTATTTTCTAAGACCAAGGACATTCTTTTATGTAACCATAGTACAGTAATCAAAAT
CAGGAAATCAACAGTGATACAATGCTAGTATGAAACCCAGTGGTTCTCAAAGTGTGACCC
GAGACCAGTATCATCAGCATCACTTGGGAACCTTGCTAGAAATACAAATCTTTGCCCTCTA
CCCCAGCCAGCTGCATTGAATCAGAAATCTGGGGGTGGGGTCTGGCAATCTGTGTTTT
[G, C]
ACAAGCCTGCCAAATGAGCCCAAAGCATACTGAATTCGAGAATCACCCATCTAATTCAC
AGTCTATATTGTCTGAATTACATTCTTAGAAGGGACAGTTCTATAAGATTTTTGTGTGTG
TTGCAGAGGATCTCATCCGGAATCATCTGTGTGATTTTTAAATGATGGGTGGTTTCAGT
GGGCTGAGCTGCTCTCCCGGGAGGGGCTGTTGCCATGGTGATGGCTGCTGGCAGTGCTGA
GAGACAGCTGTGGGGCCGCCTGGGCTCTGTGTGCCACTGAGCTGGCAGGTTGCCACTTCC

59300 TGATTTAGGAACCCAGTACTTCACCTTTAATTGTAATATGTTTGCAGTTAAATACATTCC
CTAATTTTAAACAATTATATAATCATAGTATAATTATCAAACTAGGAAAATTAATATTT
TACTAGTTTTCCCTTTTATGCCTTTGGTCTATTCTAGGATCCAATCCAGGATTCTACATT
GCATTTAGTTCTATTCTTTAGTCTCCTCTAATCTGTGACAATTTCCCTTTCTGCCTTG
TTTTTTATGAATTTGACACTTTTGATGGGTAAGTGGCAAGCTATTTGTAGAATGTCTCT
[C, T]
AGTTTGGGTTTGTCTAATGTTTTATCACGATTAGATTGAGGTTACATATTCTTGGCAAGA
CTACTACAATAGTAGTATTGTATTCTTCTCAGTACATCATATTAAGGGGTACCAGCTGTA
TCTTATTACTGATGATGTTAACTTTGATCACTTGGTTAAGGTTCTGTCTTGTGGGGTTTT
TCACTGTAAAGTTACTATTTTTTCCCTTTGAAATTGATAAATATCCTGGGTAAGATAGTT
TGAGAGTTTTCTATTAATAATAGCCTGTTTCTTTTCAAATCTTCACTCATTAAATTTAGT

60998 ACTGGCGCGTGCCACCACGCCCAGCTAATTTTTGTATTTTGTAGTAGAGATGGGGTTTCTC
CATGTTGGCCAGGATGTTCTCCATCTCCTGACCTTGATGATCCGCCACGTCAGCCTCCCA
AAGTCTGGGATGACAGGCGTGAGCCACCGTGCCCGGCGCAAAATCTTAACCACTAATA
GGCCTGCTAGTAACTTTGAGGCAAGTACTTCCGAACCTGATTGTACTATAAAACGGAACA
TTTGAAATTTCTCATATGTTTCTTTTTATGCAAACTATTTAAACAAACCAAGTAAGC
[G, A]
GGTTGAGTTTTGCAATCTTGAATCTCTAGTGCCTGTCAATAGACTATTAGAAGTAAATTT
GGCAATGACGTGCAGCCACCAGGCTTACTAGTTCTCAGAGGGTCTTGTAGAAGTTTCTA
TTGGGTGTGTTGTCTAGTATTAGAAACAAATCTTTTCTGTGCTTCAGAACAACTGCT
TATAGTCTGAAGCCTGTTTGGGACCACCACCCCCAGAATTGGTTATTTATAGATGAGG

AACACCCCTGGAATTTGACCATTGTGACATTGATTGGTGATCATCCTTCCTACTGTGAAC

63013 ATGTCAATCCAGTGAATTAATAAGGGAAGCTTTTTTCATTATTTTATTTTGTTTTATTTTG
CGATGGAGTCTTGCTCTATTGCCCCAGTCTTGAGGGCAGTGATGGGATCTTGGCTCACTGT
AACCTCTGCCTCCTAGGTTCAAGTGATCCTCCTACTTCAGCCTCCCGAGTAGCTGGGATT
ACAGGCATGTGCCACCACGCTGGCTAATTTTTGTGTTTTTAGTAGAGACGGGGTTTCAT
CATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAAGTGATCTGCCTGCCTTGGCCTCC
[G, A]
AAGTGTGGGATTACGGGCATGAGCCACTGCACCCAATCTGCATTTACTGAGTCAGAGTT
ATTGATGATAATGATAATGATAGTTGATGATAATAGGGATATGCATTTTAAACAAGCAAC
TTGGAAGATTTTGATGCATAATATTTGAGGTCCACTGGAAGATGCTTATTTAATGGAGA
TATGGTAGGGTGTGAAGGAAGAGCATTTTAAGTTGTGAGTCCAGCGAATTAATAACGGAA
GCTTTTTTCATTTTAAAAATAAAAGCAGGACAGAATAATTTTTGAAGTTCCTTTTAGCCTT

63293 ATCTGCCTGCCTTGGCCTCCGAAGTGTGGGATTACGGGCATGAGCCACTGCACCCAATC
TGCATTTACTGAGTCAGAGTTATTGATGATAATGATAATGATAGTTGATGATAATAGGGA
TATGCATTTTAAACAAGCAACTTGGAGATTTTGATGCATAATATTTGAGGTCCACTGGA
AGAATGCTTATTTAATGGAGATATGGTAGGGTGTGAAGGAAGAGCATTTTAAGTTGTGAG
TCCAGCGAATTAATAACGGAAGCTTTTTTCATTTTAAAAATAAAAGCAGGACAGAATAATT
[T, A]
TTGAAGTTCCTTTTAGCCTTAAACATTGCAGGGGTTTTTTTTGTTTTGTGTTTTGTGTTTAA
ATTGAGGCTTCTGAGAATGCTCTTCTTTTGTCTTTAAGGTTGTAAGTGTCTTTGATTGCC
AATGTTAATACAAGGATTAATTTTTTAAATCAAATCCTTTTAGGATTTAAATTTGATAA
TAACAATCAAAGGTGGGGTTAAGAACACTGAATTTGGGTTGTTCTTCATTTCTTTAAAGC
CTCGACATTTCAAAGGCAATCTGTGATTGGCTAACTGGGATGGTGAAAGGAGGAGATACT

64181 TTACATTTTCATCAAAAAATTAGCTTTTTTACTTTAAAGACAGCTTAGAGAAAGAAAGTAA
TGCTTTTCATATTGCTGAGTTAAATCAGACTAAAACTGTATTTCTTTGTTGTGTCAAAA
TCATAATTTGTTGTGCTAAATCTTTGAGTGACTTGTCTATCATAATTAATCCTTAGAA
AAAATCAGAGGTTTTTGTGTTTTTGTGTTTTTTGAGATTGGGGTTTCATTCTGTGAC
CAGGCTGGAGTGAGTGGTGCAATCATAGCTCACTGCAGCCTCAATCTCCTGGACTCAAA
[C, T]
GCTCTTCCCGCTCCACGCTCGCAAGCAGCTGAGAATATAGGCATGACACCAGGCTGGGCT
AATTTTAAATTTGTTTTTTAGAGATGGGATCTTGCTATGTTGCCAGGCTGGTTTTCAAGC
TCCTGGCATTAAAGTGATCATCCTACCTCAGCCACCTGAATTACTGGGATTACAGATGTGA
GTGATTGCATCTGGCTGTGTTTATTAAAGAACACAGTAAATGCAAAACAAATAGTTTTTC
TTGAGGATAAACATGTAAATGGAAATAGGAAGAATAACTTAAGAAGCACAAAGACACAGA

64191 TCAAAAACATTAGCTTTTTTACTTTAAAGACAGCTTAGAGAAAGAAAGTAATGCTTTTCAT
ATTGCTGAGTTAAATCAGACTAAAACTGTATTTCTTTGTTGTGTCAAATCATAATTTG
TTGTGTCTAAATCTTTGAGTGACTTGTCTATCATAATTAATCCTTAGAAAAATCAGAG
GTTTTTGTGTTATTTTGTGTTTTTGTGTTTTTGTGTTTTTGTGTTTTTGTGTTTTTGTG
TGCAGTGCGCAATCATAGCTCACTGCAGCCTCAATCTCCTGGACTCAAACGCTCTTCCC
[G, A]
CTCCACGCTCGCAAGCAGCTGAGAATATAGGCATGACACCAGGCTGGGCTAATTTTAAAA
TTGTTTTTTAGAGATGGGATCTTGCTATGTTGCCAGGCTGGTTTCAAGCTCCTGGCATT
AAGTGATCATCCTACCTCAGCCACCTGAATTACTGGGATTACAGATGTGAGTGATTGCAT
CTGGCTGTGTTTATTAAAGAACACAGTAAATGCAAAACAAATAGTTTTTCTTGAGGATAA
ACATGTAAATGGAAATAGGAAGAATAACTTAAGAAGCACAAAGACACAGATCTTGGAATA

68992 ATAGTTGTTTTCAATAGCTTTTCAGGAAAATACCAAAGTAAACAATTAAGTGTCTGTGGA
TGGCAAGACTTTAAATGATAATGGTTAAATGTCTGATGAAAATTAATTATAATGCAATTG
ACAAGAAAATTTTGTTCCTTTTCTGTATATACAGTATTTTTTAAAAATTAATAATACGA
GTGATAGTAATATGTCAAGACTATCAAGTTTCTGGGAATTTTCATATAATTTCTGGAAAAC
ATATTAATAACATACTCATGCAATATAACTTAAAGATGGTTCAGCAACACTTATTATTG
[A, C]
CAATGCTTCCCATGCAATTTAACACATCAAATAAGCCTAATTAGTTTAACATCTCTCTTT
TTTATAAGAAGAGAGGAAAAATTCCTTTGAGAAATCCAGAAGTCAGTTTGGAACTTC
CAAAGTTGGTTTGTGAGTTCGAAAGGCTTAATTTAATGCTTGATTTTGAGAAGTGGTTAA
AAATGTCAAAGGGTTTAAATAATTAATAAGGATCAGAGGTCACTGGCAACAGTAGTCA
TTTAAGCAGAGTGATAATTAATAACTTCAAAGAAAGTTACATAATTATAGAAAAACCTT

76246 ATCTGATGACTATGTGCCTTGGGGATGGTTGACTTATATGGTGTCTAACCAAGGTTCTCT

FIGURE 3, page 117 of 141

GTATTTATTCGTTTTGCATGTCATCCTCTTTAGCAACATTAGGGAAATTTTCATGGACTA
TATCCTCAAATATATTTATCTGAGTTGTTTATTCTCTCTCTCAGGAATACCATTGAGTC
ATAGATTTGGTCTCTTTATATAATCCTATATTTATCAGAAGTTTTATTCATTTTTAAAA
TTATTTTTCTTTATTTTTGTCCAACCTGAGTTGATTGGAAGAACTGGTCTTTGAGCTCTGA
[T, C, G]
ATTCTTTTCTCAGCTTTGATCCTTCTGTTAATACTTTTGATTATATTATGAAATCTTGT
AGTCAATTTTTCTCAGCTCTAGAAGCTCAATTTGGTTCTTTTTTAAATGGCTATTTTCATCTT
TCAGCTCTTAGATCATTTTACTAATTCCTTGGAATCCTTGGGTGGGTTCAGCTCTCTC
CTGAATCTCCATGAGATTCCTTGTCATCCAGAGTCCACATTCTATGTCTGTCTATTTTCAGT
CACTTTTGATTGGTTAAAAACCATTGCTGGGGAGCTAGTGGACTTGTGGAGGTAAGGG

77368 CTATTCCTGCTGCGGCCCATGAACCCACGTGACTCAACCCTCTTAGTGCTCTGAGAATGT
GGGCTCCATTCCCCTCAAGTGCCTTAGTACTCTTAGGCTATGCACTGCAGCCCTGGGGA
GAGATCAGGGTTTTTGTTCCTTCCCCACCTTGGGGGAGCAGAGGTGGGGCTGCAGTGGC
AGCAATGGCATACAGCCTGCCAGTTACCTCAGGGGGTCCACCCCAAGAAATGCATAGC
TATGGCTAATTTGAGTGATCAGCTAGGGATGGGGCAGCTGTGCTGTGGGCCAAGCTTGG
[A, G]
AGTAGGTGGGGTGGGGGCTCTGCCTAGGGAAGACAAAAGAAGATAGTTTGGCCTCTTCTC
CATAGGATGGCTGTGGTGTGCTATAGGCCTGCAACAACAATCAGGCTGTTTGTTCCTTT
CTAGCCTGGGTGTTGGGGGTGATGGGTGGGTACTATGGTGGTGGCAGTGACAGAGGGCCT
GTCAGTTGTCTCTGGAAGCTCCACCCAGAGAAATGCAGAACCACCTAACTGATCAGG
TGGGAGTGGCACAGCTGCTCTGGGGGCTAAGCTGGAAGGCCGTGCCCAATCAGGAGCAG

78043 GACAGTTCTTAGATTCTTTACTCTCTCCCCAGCCTGAGGACAGCAGGGGCAGGGGCTGTA
GCAGTGGCAATTGCAGCAGGCTTGTGAGTTGCCTCTGGGAGCTCCATCCCAGAGGAAAGA
AGAGCAATGACCAGCTGGAATGTTGAGATTGGGGTGGGGTGGCTGTGATTGGACCTTGCC
TGATGAGGTACAGTCTGAGTTTCATCTCTCCTCAGCACCGTGCCTGTGGTACCTATCCT
AGAGGTGCACGAGAGAGCCTGAGCTCCTTTGTTTGTAGGGCTATGGCAGCTGGCACCAAC
[G, A]
TGCTCAGAGATCCAAGGCTCATGGAGCTCAATGTGGGCTTCACTGGTGTAGCTCTGCACAGA
CTCCACAAGCTCTCTGTGTCGATCTGGAAGCCAGGGGAGCCGGGGGCTCTCCTGTGCC
CAAGATTACAAAGGTCATGCAGACATGTGGTCTTGGGGACTCTCACTCATCCTCTCATC
CTTTCTTGCAGCTGGGAGCCTCCTCTGGCTCTGCACCAATCCTGGGTGGGCAGCTGTCC
TACCTTGCTCTTCTTTGCTTTCTGTGGGTGCTGTGCTTCTTTGATGAATCAAAACATG

79395 GAGATTTTGGGTGGGGACACAGCTAAACCATATTACTTTCTAATATCCAGTCAGTTTTTT
TCCCCAAATAGTTCTTTCTCATTTTGGATCAATCATTCTGCTCTAGAACAATAATTTATTC
TCTTTTTGTTTTAACAGAACATACACATCCTCATAACTTATGCTTTTCTTACCAAAAG
CACATCTTACCTATATTGTATACTTGCATATAAAGTTGTTTTCTTATTATTTCTAGTAA
TTTTAGTTACATATTTAATTAGAATCTTAGCCCTTTATGACCTTAATTTCTAGTGAAC
[A, T]
CTAGGAAGCAAGCAAGTGTGAATATCATGCCAGCAGTCTATAGATTGGAAAACCTGTGAA
TTATAATTCTAGGAGCATATACTTTTTTATAATACATTTTTTCAATGTGGCACAGAACAA
TTTATTAACAGTCCCAACTGTCTTTAGTCTCTCTGTAGTAAGAACTGTAGAGGAAACAA
ATTTTTATTTCTATCCTGTAGGGCTTTTTTTTTTTTTTTCCCATCCTTCGTAAGAATGTT
AAAAGTTCTGGTATAGAAAGGACATTTTTTACATGGAATTCTATCTTACCTCTATTTG

79474 CATTTTGGATCAATCATTTCTGCTCTAGAACAATAATTTCTCTTTTTGTTTTAACAGAA
CAATACACATCCTCATAACTTATGCTTTTCTTACCAAAAGCACATCTTACCTATATTGT
ATACTTGCATATAAAGTTGTTTTCTTATTATTTCTAGTAATTTTAGTTACATATTTTAA
TTAGAAATCTTAGCCCTTTATGACCTTAATTTCTAGTGAACACTAGGAAGCAAGCAAGTG
TGAATATCATGCCAGCAGTCTATAGATTGGAAAACCTGTGAATTATAATTCTAGGAGCAT
[A, G]
TACTTTTTTATAATACATTTTTTTTCAATGTGGCACAGAACATTTATTAACAGTCCCAACT
GTCTTTAGTCTCTCTGTAGTAAGAACTGTAGAGGAAACAAATTTTATTTCTATCCTGT
TAGGGCTTTTTTTTTTTTTTTTCCCATCCTTCGTAAGAATGTTAAAAGTTTCTGGTATAGAA
AGGACATTTTTTACATGGGAATTCTATCTTACCTCTATTTGACTCTTGCTTTTAAACAATT
ATGCTTGAAATGCTCATAAAGATGAGACATTAAATAGCTAGCCATCACCTTAAGTTATTT

79992 TTTGACTCTTGCTTTTAAACAATTATGCTTGAAATGCTCATAAAGATGAGACATTAATAG
CTAGCCATCACCTTAAGTTATTTTCTTGCTGACAAGCTATGTCACATAGAGATAACATG
AACTTATTTTACTAAATAAACCTAGGGGAGAAGAGTTGTGCATCTGTATTATAC'AAATG
CCGACAACCTCTGAAGGTATGCCTGCATTAATCAAGCCAATATACTTTTATTAGCTACTAT

FIGURE 3, page 118 of 141

TTACCGAAGATTATCCAAGATTATGTCAACTTGAAAAATATTTTAGGTTTGTCTTAAGG
[G, T]
TTTAAGGAATACCTATTTTATATAAGCACTTATTTTCTTTAAACCAATTAAATAGTTCT
CTTTTACAACCTTAATTTTGGCAATACCATAAAGAAAAAGAAATATGTTACACATTCTATA
CATACATACTGACATATATAAATATAAACATAAAACAGATCTTGTAGTATTCATTTAAA
AATTTTAGCCAGGTGCCAAGTACAATAACACAAAGCTCACTAATCTGGAAGTGAATTTTT
TTCTGGCCCATGGAACAAGATTACCCACCCAGATGGCTAAAGCTTTTGAAGTATTTGT

81065 CTTTCATCTCTTCTCTCTCTCTTCTCACTCCTCCTCTGAAGGTATTTCAGGAAGAAGATGGCA
ACATGTAGGCAATAGTCTTTCTGCCACTGGAGATGTTTTATCGTGTTTCAGAGAACTAAA
TGAGATATACCAGAATCCTCGCATACTCAAGTCCTGCAGTTGGCCCTGCAGAACCTTCAT
ATATACAAAAGCCCTTCATATATGCAGATTTCCATTCCTGCAAAATATTGTATTTCCAATA
TGTGTTTGGTTGAAAAATATCAGTTTAGAAGCTGATATTATAAGCTTGTAAGTATGATATA
[T, C]
TAAGCAGACCTACGCAGTTCAAACCCATGTTATTCAAGGGTCAACTGTATGTTTACAGGT
CACCTTTCATCTGAAGGACTTTCATGTCTGCTACACAGGATGTTATAATGATCTATTGTCT
AGAAATGTTCTTTGCAACTTACAGAAACATGAGAGTACAGCTTGATGGCTCAACAGAAT
TCTGATAAACTCAAGGAGTAAAAAGAGAGAAGAAATAAAGGCAGGTTTGAAGAATGAGAA
AGAAATGATAGTCTTTTAGACAAGGAGTTAAGTATTCAATTGCGCATATTTTGAATTCC

81350 TTGTAACTGATATATTAAGCAGACCTACGCAGTTCAAACCCATGTTATTCAAGGGTCAA
CTGTATGTTTACAGGTCACCTTTCATCTGAAGGACTTTCATGTCTGCTACACAGGATGTT
ATAATGATCTATTGTCTAGAAATGTTCTTTGCAACTTACAGAAACATGAGAGTACAGCTTG
TATGGCTCAACAGAATTCTGATAAACTCAAGGAGTAAAAAGAGAGAAGAAATAAAGGCAG
GTTTGAAGAATGAGAAAGAAATGATAGTCTTTTAGACAAGGAGTTAAGTATTCAATTGCG
[C, T]
ATATTTTGAATTCCACCAAGCTTTGGAACACTCTCCTTGGCCAGAAAACTATCAGGA
AACCCTACTTGAGCTAGGCTGCTAGTGAATGTTTGTCTATACTTTTGATTTGTTACGGCCC
TGTGTAGGAGAGAAAATGCTAAGCAAATATTGTCACATTGCACTGTAAGGAAATAAAAA
TGCATTAGAAGTGAATCAGTTGACCTCATATTGTTTCATTAGAAGTAATTTCTTTGGAT
TGTCCTATTGCCTATAAATGTTCTTCTTGCATCTTAACAACAACCTCTGTCATGAGTAG

81474 TGATCTATTGTCTAGAAATGTTCTTTGCAACTTACAGAAACATGAGAGTACAGCTTGATG
GCTCAACAGAATTCTGATAAACTCAAGGAGTAAAAAGAGAGAAGAAATAAAGGCAGGTTT
GAAGAATGAGAAAGAAATGATAGTCTTTTAGACAAGGAGTTAAGTATTCAATTGCGCCATA
TTTTTGAATTCACCAAGCTTTGGAACACTCTCCTTGGCCAGAAAACTATCAGGAAAC
CGTACTTGAGCTAGGCTGCTAGTGAATGTTTGTCTATACTTTTGATTTGTTACGGCCCTGT
[G, A]
TAGGAGAGAAAATGCTAAGCAAATATTGTCACATTGCACTGTAAGGAAATAAAAAATGCA
TTAGAAGTGAATCAGTTGACCTCATATTGTTTCATTAGAAGTAATTTCTTTTGGATTGTC
TCATTGCCATATAAATGTTCTTCTTTGTCATCTTAACAACAACCTCTGTCATGAGTAGTCTA
TGACTAGCTTATTTTTTCCACTTTTGCTCCCCATGAATATGATAAGGACCTCTCCCACTC
TTTATGGGGCCTGTGTTTGTCTCCTGCAAAGACTAAACACAGTTAACATTGAATCCATC

82037 TCCTGCAAAGACTAAACACAGTTAACATTGAATCCATCCTTTTCTTTAGAGGAACATTTCT
TCAAATTATCTCTAAGTTTTCGGTGTTTTACAGTAAATGGATCAGGTCTAAGGGTCTCTC
TAAGAAAAATTTAGCATTTGACATTTTATTTTATAGCAATTGAAATACATCAGTACAAC
CATATTCAGAAAGGGCATTATGTCAGACACTGCCAGGCTATTTTAGATGTTTGTCTATTTT
TGATCATAGTTAGTTTTTGGCCTTAATAATAAGTATTATTATTTTACTTATTGCCAGTGA
[A, G]
TGATAGGATAGAGCTTAACTAAATGCCTTAAACGATGTGCTTGGATCCCCACATAGATCCA
CAGTTATTATATTCTTAGGGTTTTGCTATAGCTACGTAGAGGAAAGGAGAATTCAGTCA
TCCCAATGCGCATGGTACCCTGGGCATGCTGAACCTAAAAGAAGCTATACTACAGCAGCT
ATATGCACAATATAAGTGCCAATTTAGTTTACCAAAAAATCATCACTTTATATTAATTC
ATATCACTGATTTGAATTTTATTGGCCGACCTTTTAAAGTTTATATGTTAAGATTCTAT

83258 TGGATAGACTTTGATTAAAGAGAGAATCTTTGTCTAGTGATAATTACAGAATGGCACTTTCT
TTATAACAGTGACTGCTATGTATTAACGTGTGTTAAGTGAACCTGATTTTAAACATATTA
GCTGAAAAAATATGAAAGATTATGCTCTTCATTTTCAGGGCCGAGATCTGGACGATAAAAT
TCAGGAATATAAACAGCTGGAAAAATCTTTCCAGAAATCAAATAATAGAATGGTTTAT
CCAGCTGCTGCTGGGAGTTGACTACATGCATGAGAGGTATGTTTCTTACTGGGGGA
[G, A]
CATGATATATTTTAAACAGTCATGTTTGAACCTGAAAAGTGAATTTTTTTTCTATAATTG

AAAGAAAACAAGTTCAAAAGGTATATGGCTAAAATTAAACATCTATAATATGTTTTTCCT
TGAGAAACTGTTGAAFGATTATATCTAGAGGATTTACTTGTCATAGCTTTTTGTTGCTGT
TCTGAACTCAAGTTGGCCTTGAATATAAGACAGAAATTTGTATTAAACACATTTTCATTA
TGTCTGATCATGTCTGTGAATTACAGGAAGTTCTCAGAAACCTTTGGCATCCTATGAAT

83790 ATTTTCATTATGTCTGATCATGTCTGTGAATTACAGGAAGTTCTCAGAAACCTTTGGCAT
CCTATGAATTTATTGTATCTTACAGCAGGCTTGAGTTGTAAATACCTTAGTATGCCACAA
ATGAATTGTGTGGTCGCTTGGAAATGTGTCTAGTGCACACTTAGCTAGGTTACATCCCAA
AAGAGCTCAGTAATTGAGACAGAATGTATTCTTTACCTCAGAGGGATAAGTATTTCAGAT
AGAAAGTCAGTTTTGATATGAAGTATCTGATAATGAAGGTCAATTATTTTGATTATCTGT
[G, A]
ATTTACATTTACAATCTCTGCCTCAAAAATGTATTTTAAACTTTTAAATGAATTTTATA
GGTCAAAAGTAAGAAGTTTGAAGTTAAATATTTTAGAGACCCATAAAATGATATGAAC
ACGTTTGAAGATGAACATACATAGACAAAAAGAGTGGATATTCTGAGGTGTCTGTG
GTCGCTTTACCTTGGAGTGGGGCTTAACACATGGTACCATTCTTCTGAACGAAAGG
GGGTAATTTATAAAGCACACCAAGGTCTAACTATCCGTGGATGTCAGGTTGCTTAAATGT

86565 GCTTGCTTCAGGAAGGTTAGATGATAAATTATATCAAGGAGAGAAGGTAACCTGGGTTAT
CAGTCAAGAACCTTTTATAATATCCATGCATGAGATTGTGAGACCTAAACCAAGCTGGCA
GAGGTGGGTAGAATGAGGAAAGATGAGAATGAAGTCAAGTTGAAATGACTGGACTTG
CAATTAAGTGTATCTGAGATGTGATAGAAGGTCAAAGATGAACCTGAGGTTTTGTGCTTG
GATGAATGAGAAATTGGAAGACAGGTTTGAACAATGGTGATGAGTTAATTATGAATA
[C, T]
GCTGGGTAGAATATGGAGAGAGAAGAAGGAGAGGGAGAGAGAGAGAATGAGAATGAG
AGAAGGAAGTTAGAAGTGAGGCTCTGGATCTTAGGGAACCATCAGGCTTGACTTTGTTT
GGGTTCCTACAATATCAGAGCCCTGAAACAAAGACTAGGGTACAAATAGAGTTTTAGGAG
GTAATCTTAGAAATCAGAAGCCAATAAGTGGGAAGAGTGAGAAGGAGAAGCCAGAAAAGC
TGTGCAGAATGCATGGTTGAAGTGTGGCTGCTGTGGGTAGAGGGATGCAGAGGCAGGAC

86707 ATGAGAATGAAGTCAAGTTGAAATGACTGGACTTGCAATTAAGTGTATCTGAGATGT
GATAGAAGGTCAAAGATGAACCTGAGGTTTTGTGCTGGATGAATGAGAAATTGGAAAGA
CAGGTTTGAACAATGGTGATGAGTTAATTATGAATATGCTGGGTAGAATATGGAGAGA
GAAGAAGGAGAGGGAGGAGAGAGAGAGAATGAGAATGAGAGAAGGAAGTTAGAAGTGAGG
CTCTGGATCTTAGGGAACCATCAGGCTTGACTTTGTTTGGGTTCTACAATATCAGAGC
[C, T]
CTGAAACAAAGACTAGGGTACAAATAGAGTTTTAGGAGGTAATCTTAGAAATCAGAAGCC
AATAAGTGGGAAGAGTGAGAAGGAGAAGCCAGAAAAGCTGTGCAGAATGCATGGTTGAAC
TAGTGGCTGCTGTGGGTAGAGGGATGCAGAGGCAGGACTCTTCTAATAGTGTTTTAAAGTT
TTGAGTTTCTCTTCCTGCATTCTTCTCTGAATTTTGGGGAAAAAAGAAAAAGCAGGCC
GGGCACAGTGGCTCAGCTCTGTAATCCAGCACTTTGGGAGGCCAAGGCGGTGGATCAC

87243 AGGCCGGGCACAGTGGCTCACGTCTGTAATCCAGCACTTTGGGAGGCCAAGGCGGGTGG
ATCACAGGTTAGGAGTTTGAAGTACCTGGCCGACATAGTGAAACCCCATCTCTACTG
AAAATACAAAAAATTAGCGAGGCATGGCGGCAGGCACCTGTAATCCAGCTACTTGAGG
CTGAGGCAGGAGAATGGCTTGAACCTGGGAGGTGGAGGTTGCAGTGAGCCGAGATTGCAC
CATCGTATTCTAGCCTGGGTGACAGTGCAAGACTCCCTCTCAAAAAAAAAAAAAAAAAAAAA
[A, -, G]
GCAATCTTGCTTAAATATAACTATTGTTTTCTAGCACTATTGTGAATTTCTCTTGAAAA
ATTTCTTGATTTTCTGGGAATTTGGAGTGAGGAGGGGAGGAAGTTGGAGTGAGGAGGGG
GAGGAAGTTGTCTTCATCTTGATCCAATTTTGAATGGTTTTTAAATGGAGCAGTTATAT
ATATATTATTCTGATTGTAAATGTATAATCTATGTTTCACTTCTGTTGGTTTTTCAGTAT
TTAATTTAGTATAAAACATGTTTCTTTCAGAAAATAAACTTATTATCTTAATTGTCTGA

87243 AGGCCGGGCACAGTGGCTCACGTCTGTAATCCAGCACTTTGGGAGGCCAAGGCGGGTGG
ATCACAGGTTAGGAGTTTGAAGTACCTGGCCGACATAGTGAAACCCCATCTCTACTG
AAAATACAAAAAATTAGCGAGGCATGGCGGCAGGCACCTGTAATCCAGCTACTTGAGG
CTGAGGCAGGAGAATGGCTTGAACCTGGGAGGTGGAGGTTGCAGTGAGCCGAGATTGCAC
CATCGTATTCTAGCCTGGGTGACAGTGCAAGACTCCCTCTCAAAAAAAAAAAAAAAAAAAAA
[A, G]
GCAATCTTGCTTAAATATAACTATTGTTTTCTAGCACTATTGTGAATTTCTCTTGAAAA
ATTTCTTGATTTTCTGGGAATTTGGAGTGAGGAGGGGAGGAAGTTGGAGTGAGGAGGGG
GAGGAAGTTGTCTTCATCTTGATCCAATTTTGAATGGTTTTTAAATGGAGCAGTTATAT
ATATATTATTCTGATTGTAAATGTATAATCTATGTTTCACTTCTGTTGGTTTTTCAGTAT

FIGURE 3, page 120 of 141

TTAATTTAGTATAAAACATGTTTCCTTCAGAAAATAAACTTATTTATCTTAATTGTCTGA

95967 TTTTCAAGGTAACCTCACCCCTGAGCCAGGTGTAGGCACACTCCTGATATGCTGACAGTG
GCCAATAGTTTGAGGAAGACCTGACCCTGCTTCTGACTTACAACATAGAGGACTCATTGT
GTTAGTGAGGGGAATGAGACTGATGAAGAAAGGCAGGTGCCTCAGTGCCAGGACAGGGG
CCACATGGCAAAGACCAGTAACAGGAGTTGCCTGGGTTGTGCATCACAAAGGAGCCATTG
GCTGTGCCAGCACCTTTGGCAAGAAGAGTTTGTGATCCACCCTGAGAACCTGCTAGATGA
[A, G]
GGATAGACCTCCAGGGAGGGTTTCATATCATAAACTGTTTCATATTAGGGCTTGAGGGGAG
GTGAGAGGAATTGTCCATACCTTCTCCACAGTTCTACCTTGGGCTGGAGGCTGAGAAAT
GCTGCCCTCTGTACCTCCACAGACTGTTCTTCATCCTAGCCCTGGGCTGGATGCTGGG
GAAGAATGACCTGATGGGAGATGGAGATGGGATTTTTCATGAATTTGAACCAGAAAC
TGTCAGCAAATCTTAACCAGATCACTTGGGTGTCATGAAACATAGAAATGAGAGGGACCC

96374 GAGGCCTGAGAAATGCCTGCCCTCTGTACCTCCACAGACTGTTCTTCATCCTAGCATGGG
CCCTGGATGCTGGGGAAGAATGACCTGATGGGGAGATGGAGATGGGATTTTTCATGAA
TTTGAACCAGAAACTGTGAGCAAATCTTAACCAGATCACTTGGGTGTCATGAAACATAGA
AATGAGAGGGACCCACCCTTGAACAGATATGGTATGGTGCCTTGAATAATAGATGGA
GAACTGTGTTGAGCTTTTGAAGAAAGATTTTCATATAAACTTTATTGCCTGTTACCTTA
[T, G]
TATTTGTTGGATTTTCATTTTCATATACTTCAAAGGAATGGATATTAGCCAAACATAGGAT
AAAATTATGCTGGCTCATTTTGGCTTACTGTAACCACAAAGCCAATACATTACGATTTT
TTTTTCTCCTGAGACGGAGTCTTGTCTGTCACTCAGGGTGGAGTGCAATGGCATGATCT
CGGCTCACTGTAACCTCTGCTTCCCAGGTTCAAGCAATTTCTCCTGCCTCAACCTCCCAAG
TAGCTGGGATTACAGGCATACGCCACCATGCCCGTCTAATTTTGTATTTTTCATGAGAGA

100283 ATGTCTACTTGTGGATTTTGTGTTTAAATCTGCTTGGGATTTCTTTTGTCTGAGCTT
GTGAATTCATGAAAACCTCTAAATCTGAAAATACCTCGTCATTCTCTTTGAATTTTG
CTTCTCCCCTATTCTCCTTTTACAATGCTTAAAGATGTATGTTAGACCATCACATTCTGT
TCTTCATTGCTATGCACCTCTCTAGGAATCCATTTATATATATATTAGAACTTTAAGCC
TGTATTTTCAGATGTCTCTTATACTCTTTTCTATGTTTTCTTTTCTTTCTTTCTTTCTT
[T, C]
TTTTTTTTTTTTTTTGTAGACAGAGTCTCACTCTTGTGCCCAGGCTGGAGTACAGTGGCGC
GATCCTGGCTCACTGCAACCTCCGCCTCCCATGTTCAAGCAATTATCCTGCCTCAGCCTC
CTGAGTAGCTGGAACACAAGTGCCCGCCACCATGCCCGGCTAATTTTGTACTTTTAGC
AGAGATGGGCTTCATCATGTTGGCCATGCTGGTCTTGAACCTCCTGACCTCAGGTGATCCA
CCCACCTTGGCCTCCCAAGAGCTGGGATTATAGGCGTGAGCCACTGTGCCTAGCCTTTT

101074 GCACCTCTAGTGCATATAAAAAATATATATATATTTTCTATATAGAAAATATATAGAATCT
AGCTCTCTATTGAAATCTCCATTGTGTGAGTTATTTCTTGAGCAATAATCACAGTTAT
TTTCAAATCCTTGTCCAATAATTTCAATAGGTGGATCACTTGTGTATTTATTTCTATATC
TCTTTTTTCTTTTGGTTTTTAATCATTTGATCTTATCTTTTGGTATGCCTGGTAGTTTT
TGAGTGAATGCTGAACAATATATGTGAAATATTGAGAGATGTTAGATGATATTACTTTTC
[C, -, T]
CTGCCTGACAGTTATATTTAGGGCAGATCACCTTGATCTAATGAGGAACTGAAATAGTTT
AACTGTAGGCTGTAGGCTTTTGGAGGGTTGGTCTATTTTCAGTTTGCCTTTATTTCTATG
AAGAAGTTTTTCAGAGCTTTCAGCTGAAGGGTTTAGTTTTTACTAAGATACCTCTTCTCT
TTGTGGACCTGAAATCCAAGTTTATGAATCTACTCAAAGCTCTGATTAAAAATTTAA
ATAAACTTTATTTTTTAAAGCAGTTTTCAGGTTACAGCAAAATTGAGTGGAAGGTACAGA

103767 ATTTTATTAGATTTATACCTAAGTGTTCATTTTCAGGGGTAATGTAAATATAGTTTG
ATATAAATGTCAAATTTCTACTTGTTCATTGCTGGTATATAGGAAAGCAATTGATTTTTGT
GTATCAACCTTGTATCTGCAACATTGCAGAATTAATTACTTGTAAATCCAGGAGGTTT
TTTTAATTGATCTTTTGGATTTTCTACTTGTGATCATGTATCTGTAAACAGAGAGT
TTGTTTTTCTTTCCCATCTCTATTTCTTTTACACTTCTTTTCTGTTTTACTTAATT
[T, A]
GGTAGGACTTTCAGTATAATGTTGAAAATAAATGATTAGAGGGGACATTTTCCCTTGT
CCTGATATCAGCAGAAAACTTCAGGCTTCTCATTTGTAAGTGTGATGTTAGCTGTAGGT
TTGTTATAAATATCTCTGTTTCTACTTTATCAGAGTTATTGTGATGAATGGGTATTGGAT
TTTGTCATTTGCTTTTCTGCATCTATTGATTTTTTCATGTGATTTTTCTTCTTTATTCT
GTTGATGTGATGGATACATTAATTGACTTTCAAGTGTTAAAGCAGCCTTGCATACCTAGT

104082 TATAATGTTGAAAATAAATGATTAGAGGGGACATTTTCCCTTGTTCCTGATATCAGCAG

FIGURE 3, page 121 of 141

AAAACTTCAGGGTTCTCATTGTAAAGTGTGATGTTAGCTGTAGGTTTGTATAAATATT
CCTGTTTCTAGTTTATCAGAGTTATTGTGTCATGAATGGGTATTGGATTTTGTCAATTGCTT
TTTCTGCATCTATTGATTTTTTTCATGTGATTTTTCTTCTTTATTCTGTTGATGTGATGGA
TACATTAATTGACTTTCAAGTGTTAAAGCAGCCTTGCATACCTAGTATAAATCCCCTTG
[T, G]
TTGTGGTGTATAATTCTCCTGACACAATGTTGGATATATATATGTATATTTTTTGGACAA
CATCTCGCTCTGTCAACCCAGGCTGGAGTGCAGTGGGGTGTCTCAGCTCACTGCTACCTC
TGTCTCCCGGGTTCAAGCGATTCTCCTGCCACAGCCTCACAAGTAGCTGGGATTACAGGC
CCCTGCCACCATGCCAGCTAACTTTTGTATTTTTAGTAGAGATGGAGTTTACCCTGTT
GGCCAGGCTGGTGTGCAACTCCTGACCCAGGTGATCCACCCACCTCGGCTTCCCAAAGT

104473 AGTGGGGTGTCTCAGCTCACTGCTACCTCTGTCTCCCGGGTTCAAGCGATTCTCCTGCC
ACAGCCTCACAAGTAGCTGGGATTACAGGCCCTGCCACCATGCCAGCTAACTTTTGTA
TTTTAGTAGAGATGGAGTTTACCCTGTTGGCCAGGCTGGTGTGCAACTCCTGACCCCA
GGTGATCCACCCACCTCGGCTTCCCAAAGTGCTTGGACCACAGGAATGAGCTGCCACGCC
TGGCCTACAATGTTGGATTGATTGCTAATATTTCACTGAGGATTTTTTCATCTACATT
[T, C]
ATCAGAGATACTGGTTTTAGTTTTCTTTCTTGTAAATGTCTTTGTTGGTTTTAATGTT
AGGATGATGCTGACATCTTAAATGAGTTAGGGAGTATTTCTCTGCTTTTATTTTCTGA
AAGAGATTATAGATATTTGGTGCAATTTCTTCTTAAATATTTGGTAGAATTCGCCAGTG
AACCCTCTGGGCCAGTGTTTTTATTTGGAACTTACTAATTATGATTGAATGTATT
TACTGAAGATGGGCCTATTTGATTGTCTACTTCTGTATGATTTTTTGGCAGCTTGTGTCT

105573 TGTTTTAGAAGTGTGTGGTTTTATATTACATATTTTGGGATTTTCCAGTTATCTTTCTGT
TATTAATTTCTAGTTTGATTCCATTTTGATGTGAGAGCAGAAATGGTATGATTTCTCTTC
TTTCAAATTTGTTAATGTTTTATGGCCTAGAATGACTTTCAGTTTCTTTTTGAATAATTC
GCAGGATTTTTTTTCTATTTTATGTGAGCTCACTGTGCATATATGAAGATATTTGTAT
ACTTTATTCGGCATTTTAGTTTTTTATGCAAAGATTTTCAAGTTTCTAGTTCTTTATA
[A, G]
TTCCATAAAATAAAGGCTTAACTGACATAATTTACATTACTGACTTATAGTCAGATTTA
ATAAATGTTACCTATTTCTTAAATATCATCAACAACGTTATTATTTTCAAGTATATAAA
ACTTGGACATTTGGGTAATAATAGATTACAACTGGTCTATCAATTGAGGATATGGTTAC
TGGATATAGTACTATGTAGATTATGCTACAAAAACATAATAAAATATAGCCTATTGAAAT
AGTTGAAAGCATATACCGTTCTCCAACTACATGTTCCCCAACCTTTAAATCTTTATT

105668 AGCAGAAATGGTATGATTTCTCTCTTTCAAATTTGTTAATGTTTTATGGCCTAGAATGA
CTTTCAGTTTCTTTTGAATAATTCGAGGATTTTTTTTCAATTTTATGTGAGCTCAAC
TGTGCATATATGAAGATATTTGTATACTTTATTCGGCATTTTAGTTTTTTATGCAAAGA
TTTTCAAGTTTTCTAGTTCTTTATAATTCCATAAAATAAAGGCTTAACTGACATAATTT
ACATTACTGACTTATAGTCAGATTTAATAAATGTTACCTATTCTTAAATATCATCAACAA
[C, T]
GTTATTATTTTCAAGTATATAAACTTGGACATTTGGGTAATAATAGATTACAACTG
GTCTATCAATTGAGGATATGGTTACTGGATATAGTACTATGTAGATTATGCTACAAAAAC
ATAATAAAATATAGCCTATTGAAATAGTTGAAAGCATATACCGTTCTCCAACTACATG
TTCCCCAACCTTTAAATCTTTATTTTAAACTTTTGTTCCTCAGGGAACTGGAAAGT
ATTGTGGCTTTGTAGCTTTTAAACATTGAAAGATATATCTATGGGAGTATATATTTATGT

106657 AGGTGTACAAATTTACCACATATTTGATAGATTTTCAAATATACTTTGAGTTCCCTGTT
TCATGCCAGGCACTTTACAAGTTATTAGAATCATTTTACTGGTTTGATTAGTTACTACAG
GTTTCTCATTTATATATTATTTTCATCACAAGCAATAAGTGGTTATAGATAATGAAATGTTG
ATATAATGGCTTTATTAACCTTTAGTTCTTTCAGAACTGTACCTCTCCTCATAACAGCTAC
TGGATCATCTAATCATCATATAGGGTGTACTTGGGGAAGGAAGGAAGGAAGGAATAAAAG
[T, C]
GTGCAACTAGTTAGGCAAGTATTAATAAAGCTGATAGATTCAAATTTTTATAGTCATGTTCT
TTAAATAGTCTCAGATCTTTTCTTTAAACGCTCCATTATTGTAATTTAAGAACAAATTT
CTTCTCCCTCAGGTGAAATTGTATATCATCTTATTCAGTTTTTCCAAATCATCTGTT
TGCCATTATTCAGACTTGAAATAGCTTTTTATATCAAATGTCTAGTTTCCCATAAATCC
AGAAATAAAGAATTTTAGCTTACATAATTCATTTCTCTGGCTCAAAGTCTTCTCTCTCT

106855 CCTTTAGTTCTTCAGAACTGTACCTCTCCTCATAACAGCTACTGGATCATCTAATCATCA
TATAGGGTGTACTTGGGGAAGGAAGGAAGGAAGGAATAAAAGTGTGCAACTAGTTAGGCA
AGTATTAATAAAGCTGATAGATTCAAATTTTTATAGTCATGTTCTTAAATAGTCTCAGATC
TTTTCTTTAAACGCTCCATTATTGTAAATTTAAGAACAAATTTCTTCTCCCTCAGGTGA

FIGURE 3, page 122 of 141

AATTGTATATCATCTTATTAGTCTTTTCCAAAATCATTCTGTTTGCCATTATTAGACTT
[G, T]
AAATAGCTTTTTATATCAAATTGTCTAGTTTCCCATAATTCCAGAAATAAAGAATTTTAG
CTTACATAATTCACTTCTCTGGCTCAAAGTCTTCTTCTCTATAAACTTATGTTTTTA
AACTATTTACCAGCGTTGTATAATTTAAGATATATTACTTTTCTTCTGTTAAATGC
TATGAACCATTTGCATAATAAAATGGTCAAATTAGGCACTCATTCAGTTGTTAATTTCCAG
GGCTAATTTTTCTGTTGGCTTAAAGTATTCATAAAAATTAATTATTATTTCAAGGAGATTT

106957 TGTGCAACTAGTTAGGCAAGTATTAAGGCTGATAGATTCAAATTTTTATAGTCATGTT
CTTAAATAGTCTCAGATCTTTTCTTTAAACGCTCCATTATTGTAAATTTAAGAACAAAT
TCTTCTCCCCTCAGGTGAAATTTATATCATCTTATTAGTCTTTTCCAAAATCATTCTGT
TTGCCATTATTAGACTTGAATAGCTTTTTATATCAAATTTGCTAGTTTCCCATAATTC
CAGAAATAAAGAATTTTAGCTTACATAATTCATTCTCTGGCTCAAAGTCTTCTTCTCTC
[T, -]
ATAAACTTATGTTTTTAAACTATTTACCAGCGTTGTATAATTTAAGATATATTACTTT
TCTTCTCTGTTAAATGCTATGAACCATTTGCATAATAAAATGGTCAAATTAGGCACTCAT
TCAGTTGTTAATTTCCAGGGCTAATTTTTCTGTTGGCTTAAAGTATTCATAAAAATTAAT
ATTATTTCAAGGAGATTTTGGAGTTTCTCGACTTCTAATGGGATCCTGTGACCTGGCCAC
AACTTTAACTGGAACCTCCCATTTATATGAGTCTGAGGCTCTGAAACACCAAGGCTATGA

107957 TTTCTATATTTTTTTCTTTTTGTTACTTTTTAAGAAATTTACTAAAGATATTGGCTTTAAG
GATAAACTATTTTTTTTTTTTTGAAATGGAGTCTTGCTCTGTTGCCCGAGGCTGGAGTGCA
GTGGTGTGATCTCAGCTCACTGCAACCTCCACCTCTGGGTTCAAGCGATTCTCTGCCT
CAGCCTCCCTAGTAGCTGGGACTACAGGCTCCCACCACCAGCCTGGCTAATTTTTGTATA
TTTTTAGTAGGGACGGGTTTCACTGTGTTAGCCGAATGGTCTCAATCTCCTGACCTCAT
[G, C]
ATCTGCCTGCCTCAGCTCCCAAAGTGTGGGATTACAGGTGTGAGCCACCGCGCCGAGA
CTAGGATAAACTAAATTTTAAATTTCTGGATTTTCAGTGACAGATGCATCTGAGATGTC
TCAGTTTCTCTGAGCTCTTATATTAAGGAATTTCTCCTTCTTGTATGGAACCTAAGTG
AAATCTCACTGCAGAAGCCATGTGGAAAATTTGATTAGTATGTTCTAGTGTAAGCAATA
GATCCTATTTCTTTCTTAGAAGAGGAATCTTATTATATACTTTTCTGCTTGTGAGGG

108454 GCCATGTGGAAAATTTGATTAGTATGTTCTAGTGTAAAGCAATAGATCCTATTTCTTTTC
CTTAGAAGAGGAATCTTATTATATACTTTTCTGCTTGTGAGGGTTGAAAGAACAATCTA
GCTGAGGGCTTGTAAATTAAGTAAATAATTACTGTATGCAAAATCAACATAAATAGTCTG
AGCTTTCAAAGACAAGCAGTGTAAGATGTGCTTACTTCACTCTTCTAAAGAAGACAAA
GTAGAAAATTACATTTTCTCTGTTAGGGAAAAGTGAATCACACAGGGGATATTGCTTA
[G, T]
GATTTTCAAGGGTCAATTATCTGTTTCTTCTGTCCTACCAAATGGGAGAGAACA
TTGTCAAGATTAGGTCTGGGTATGGCAATTTCCCATGAATCCCGTCTTTCAATTCAGTC
TTGCAATTGTTCAATTTCTAAATTAATCACGTGTTTTTTTCATCATTGGCTTACTTCTGCC
CTGGAGGTCTTTTCCAATTCACCTATCATCTTCTGTCTTCTTTCTTCTAACCCCTTAA
CTACCACATCCAAAAGAAAAGAAAACCAACCAATAAAACCAACATCACAAAGGTA

109894 AATTTCTATTGCCAAACCTAAAATGGAATAATAAGAGAGAACTATTAATTATAGTGTC
GATACATACGTGTGATGAGTAATCTTTAGTAGACACTCTGAGAAAAATTAGATTGAATGA
GGTTGAGAACCTGTCTCTGAATCTCAGTGTGTAGCATCTGTTTATTGTGAATTTTTTTT
TAGGATTAGAAACACTTATGAATAATTGACAGGTGTTTTGTTTTAGCACTAATAGCTGTA
CATATTATATTTATAATGCTTAAAGGAGAATTTGCTTAAAGGAGAATTGGCCTAATACTA
[G, A]
TTATGTTTTCATCTGTAATGTTTGGCCATATGTAACATTATCTTCATTCTGCAATCTGTT
AACTTTTCTGGCTTCAATTTATTTATAGCATTAGTACAGGAAGTCTTCTCTCTAAAGT
GGGTTAGGTTCCAAAAGTTTATAAAGTTATTTGCAAAGTTAGGATAATTAGGTTTACTGA
GAACAATGCTTTGATCACAGCTGATTTGTATAAGCAATTTGTGAATACCTTATACCCAC
AGGAGAAATACAAATATGAGTTGGGTTCCTAGGCCAGCTCATTAATTTGATTTAACTAT

110467 GCCAGCTCATTAATTTGATTAAACTATGAATATTTAGAGTATGTTATTTTGGTAGGAGA
AACAAATAAAGGACAATATTTATTTGAATAATGGTACTGCAATTAGACAGAAAGAAAACAA
TATTTCACTGTTGGTCTTATTTACTTTGTTGTGAGAACCAACAGATGGCTCTTTGATC
TTGTAGCCCCCATATTCTTTGGGTGATATAAGTAAAGGGAACAGTGGTGGGAATAGTGGC
AACATCTAGAGTGTACTGTGAAGCTCTCAGGGTCTTTCTCAGAAATTTGGTGTGGAGGTT
[A, G]
GTTGGGTGGGGACAGAGAAGGAATCTAGTTCATGCCCAACATTGGACTCAGGCTTTTCAT

FIGURE 3, page 123 of 141

- GATCTTGGGGCAGAAGTGTGCATGCAAGGATTAGCTGTGAGTAGAAGAAAACAGAGAAGAA
CCAGCACCTGCTGACCTGCCAGGACCAAGAAAGTATCCTCATGGAAGAACATTTCCAGG
GTGGACAGGGAAGGGATGGGGACAACAGCCTATTTTTTTGAGAAATACAGTCCAACCTGC
CAGCATTTCTGTAACTAAAATGAGGCCATCTAGTAGCTGGCAGCCAGCAGCTTCATCAG
- 110538 GACAATATTATTTGAATAATGGTACTGCAATTAGACAGAAAGAAAACAATATTTCACTGT
TGCTCTTATTTACTTTGTGTGAGAACCAACCAGATGGCTCTTTGATCTGTAGCCCCC
ATATTCTTTGGGTGATATAAGTAAAGGGAACAGTGGTGGGAATAGTGGCAACATCTAGAG
TGTACTGTGAAGCTCTCAGGGTCTTTCTCAGAAATTTGGTGTGGAGGTAGTTGGGTGGG
GGACAGAGAAGGAATCTAGTTCATGCCCAACATTGGACTIONCAGGCTTTTCATGATCTTGGGG
[C,T]
AGAAGTGTGCATGCAAGGATTAGCTGTGAGTAGAAGAAAACAGAGAAGAACCAGCACCTGC
CTGACCTGCCAGGACCAAGAAAGTATCCTCATGGAAGAACATTTCCAGGGTGGACAGGGA
AGGGATGGGGACAACAGCCTATTTTTTTGAGAAATACAGTCCAACCTTGGCAGCATTTCT
GTAATAAAAATGAGGCCATCTAGTAGCTGGCAGCCAGCAGCTTCATCAGCTCCCTCCTGG
TGAAGAAAGCTCTGGAGCAAAGAATTAATTTTTTTCACTTGCCCATGGCTGGGAAGTT
- 113089 AAGTTTATTAAGGAATAGTAACAGAGAACTTCCTGAATCTAGAAAAAGATATTAATAT
ATAAGTATAAGAAGGTTATAGAAGACCAAACAGATTTAACTCATTAAATAATGATGTGGC
AAATTCATATACTCCTGTTTTGTTAATTCTGTGGGAGAGCAGGAGAAGGGAGGGTTAGTT
CAGGATTTTCTTTCTTCTTCTTACTAAAGAAAAATTTAGTTGTGTTAACAAGTTCTTAT
TTCAAACACGCAATTTATTTGGCAAGTATTAATCTTATCACCACACTTCATTGTTTAC
[A,G]
TTGCTTTTTTAAATTTGTTTTAAGTCTTGAATCCCTAGTTGAGACTAGTCTTTCTATAGG
AAGTCAAATTTGGATTGATCTTTTCAAATTCAGGATTGGGCACTTTGTAGCGAGGAGCA
TCAGGGGCGAGGAAAGAGTGTGGCCATGAGAGCCTGGGCAGGGCCTGGGTCTGATGAA
GGAGACCCCTTTGGATAGGAGCATAAGGTAAAATGTCCCATGATCCATAGGGGCATGTGG
CAGATTGTATTTTCAAATAATGGCCATCATAACATATCACTTCTCACATGTTCTTTTCTC
- 113964 TACTCCCATTGAGCTTCCAGCTGATAGCCAGCATCAGTTGGCCAGTGATGTGCGTGAGCC
ATTTTGGAAGTGGATCCTTAAGCCTCAGTTGAGCATCACCAGCAGATGCTGTGGGGAGCA
GGTTCAAGGCTTCCCTGTCAATCTCTGACCAAAAAGATTCTATGATCAAAATGACTGATTA
TTGTGTTTTAAGGTACTAAGGTTTGGGGTGGTTTTTTATGCAGCAGTGGTGACTIONGGAGC
AGGACTTCATCAGGAGAACGGCAAGCAGGAGTTGAGAAGTAGCCTCTAATCTAGGCCTCC
[A,G]
TATGACAATCTGGCAGTGTGTTTTCTTTATGTCAAAGGCTCAATAAATGCTTAAGA
GAAGTGGCTTTGCCCAGAAAAGCAATCTGGCACTCTACTGTGCTGGTCTGTTGATGGGTA
GAACCCAAGAACCTGGACCACAGCTGAGAACTTCCAGACCAGCAACTTTTCCATGTGCCT
CAGAACTCTTCTTCTTCTTCTGACTTTGCCTTCTTTCTCCAACCCCACTCAACG
TCACCCCTAGCACTGGACCATCTGACTCCAGCCTTATCTTTCTATCATTTCCCATGATTCA
- 114354 GCACTCTACTTGCTGGTCTGTTTGATGGGTAGAACCAAGAACCTGGACCACAGCTGAGA
ACTTCCAGACCAGCAACTTTTCCATGTGCCTCAGAACTCTTCTTCTTCTTCTGACTT
TGCCTTCTTTCTCCAACCCCACTCAACGTCACCCCTAGCACTGGACCATCTGACTCC
AGCCTTATCTTCTATCATTTCCCATGATTCAGTGGTATGCTGGAGCTCATACCAGCTCAT
AAGACCAATTTATCCACATTTCTTCTCAAGTCAATGTTCACTGATGTCACATTAGTAAC
[T,G]
GAAAACAACCATGGTATTTTATACCATGGAATTTGTAAATTAGGGCTTCTCCTCCTACCT
CAGAAAGGCAGTGATACCAGAATAGCTCATACTTTAGCCTTACTCCTTCTTGGCCCTAGG
GTGGTATTTGCAGAAGGGAAGAGACGTGAAGACATGAAGGTTTCTGTCTCAAAGGAATG
ATAAACATATAAACAACTGCTGTATACTGTTATAGTGCAATACATATTCTGATGTATAA
AGCAGAGAGTGATTGACAGCTGGGGATAGGGGTAGAGAGCATCAGCTACAGTCTTAGAGA
- 120163 TCTGTGGGGAAATAACCAAGTATATTGTGGCAATTCATAACATAAACATTTCTACATTAGT
AAAAGTATTTGGTTCAACTTGATGATTATATATTTTTTAGTGATATTTAGCCCTCTTGT
TTCTTAAGGAACTTTTTTTTTCATAGTATAACAAGTACTGACTGGTATTGTCTGTCTT
TTTCTTTTATAGCCATTTCTGATGAGTGTGTAGCATGTAGTGGTAGTACACAGTGGTTGTAA
TTGCACTTTTCTGATGACTAAAAATGTTGAGCGTCTTCTCATGACTTTTGGCCATTTAG
[C,T]
GTCCGTTCAAGTCTTTTGGCCATTTTTCTATTGGATTCTCTCATTTTTCTTATTGCTTTA
TAGAAGTTTTTAATTAATTTATCCATATTTTGGTAGTCTGATGAATATTTGAATTGCAAA
TATCTTACACTATGTGTCTTCTTTTCACTCTCCTAATGGTGTCTTTTTATGAGTAGAAG
TTTTGAATTTTTAATGAAGTTCATTTTATAAGTTCATAACTTTATCATTAGTGCCTTTTAT

FIGURE 3, page 124 of 141

GTCTTAAGAAATCTTTGCCTACTCCAAGATCATGAAGATATTCTCTTGTTTCTTTTAAA

124748 AACAGTCTAGGATTTGGAAAGATAAATGCCTTAATTCAAGAGTCAGTTCTACCATTTACT
ACCTATGTGACCTTGCCCAAGTCATTTAACTTTTCTGAGCCAATTTCAATCTATAAAAA
TGGGAAAAATATTACACGGGCTCTATTTCACTGGGAAGTTATAAGGGATTGTTGAGATAT
TGTCAGTGCTTTGTAAAATGTAAAGTACCAGTCAGCTCAGTTGGAAATATTTAGTGTTAT
TATTTACTGGAACAGAAATATTCTCAGTGTACATATCCAAAATTCTCTTACAAATGCACA
[T, G]
TTTCATGAGTACCCACAAAATAGTTCAATGGTATTATTTCATGTATTTATTTCTGTCTATC
CTTTGTGTATTAAAGGACATTGTTAAAAGTTACATAAAATGTAACCTACACAAGGTCAAT
CACAAATTTATTTCTTATCTTTCAAGTGACTAACATGAAAAGGAAAACCTGGACAGTTAC
ATAATTCATAATGTCCATAAGATAAAAAATAATTCATTATTACAGGAGAAGTGCCATTATTT
CTTAATACTAAGCTCAGACAGGAATTTCCCTTTCAGTTTTTTTTTAAATGATGTAGAGTT

127581 CAACCAGCCATGTAAAGAGCCTCAGAAACAGTGTTTGAATCACAGGGAATAGCTGGCACA
GAGAGTCTGATTATGTTGTGCCTTGAGGTTAGGTACAAATGGGAGGGTTCTTATGCAA
GCATATGCTCTCAGGGAAGCCCATGCGGTCTGCGGGAAGGCTAGACAGGAGAGGGAGGCA
GGCTTAGGTTTCTGATCTTCCAGCTCTCCTTCTGTGCAGGCCAAATGGGATCCAGTAG
AACCTGCAGGTGGTCTCTGGAAGAGCCTCATATGCTGGTGTGGGGATCAAAAACACA
[C, T]
TGAAGAGGCTTTGAGCATTCAAAAAATAATGGGTCAAAGGTATTACAGGGATCTGCT
GGGACCAAGATGAGGCAAGTGAGGCCCTTGACTCTGGGGCAAAGTTAAGGGGACACTAA
AATTCATAATCAAGATAAGTAATATTTAAAAATCCAGATTAATGCTTAAATCCCAGGT
AACCAAGATATTAACACTTTAAAGACAGAATCCAGCAGGGCCAGGATTAGGGTGAGGTAAG
TGAGGTGGAATTGTGCAAGTTCAGGGTTGGATCCTATCTTTAAAGTTTGTCTATTGTATT

128202 AATTTTGATTTTTTAAACAATAATGTTCAATTTAAATTTATTTATCTTGGCTACTGAGTTTTT
GGTGCCCTCTTAGATTTTGTGCCTGAGGTATCTCACTTGCCCTAAACCTTGCACTGGCCCT
GGGAGTGATAGTACTGTCTCTACAGTCTGGGAGGTGGAAAAAGCTTGTGTCTTCTGT
AGCTGAAAGTAGGCCCTGCCCATGATTGGCAAAAGGGAGTGAGAGAGCAAGCAGTGCAAGA
TGAAGCTGGAGAGACAGGCAGGAGCCTGACCCTGCAAGATCTTCTTGGAAAAGCTACATG
[T, G]
AATTTTACATAACCCAGGGAAAACCTAGCATGCTTTGTTCTCAGGCTCCCTGCCATGGTCA
AAAGCACCCCAAATCTGAAAAGATTCTTGGTAATTTATTCCTTTTCATCCCTAAAGAGGA
GCCTTTAAGATATGTCAGGGTTGATCTTTTTTTCAGAACCTAATGTGTAGATATTCAGAA
ATGACTCTGGAAGACAAAAATTTGGATTGTGAGAAGGAGGCTGCTCATATAATTAATGCC
ATGTAAGTAATTGCTTTGTTTTTAAAAAGCCCATCGAGTGTAATGTAAATGTATTGT

128496 TACATGTAATTTTACATAACCCAGGGAAAACCTAGCATGCTTTGTTCTCAGGCTCCCTGCC
ATGGTCAAAAGCACCCCAAATCTGAAAAGATTCTTGGTAATTTATTCCTTTTCATCCCTA
AAGAGGAGCCTTTAAGATATGTCAGGGTTGATCTTTTTTTCAGAACCTAATGTGTAGATA
TTCAGAAATGACTCTGGAAGACAAAAATTTGGATTGTGAGAAGGAGGCTGCTCATATAAT
TAATGCCATGTAAGTAATTGCTTTGTTTTTAAAAAGCCCATCGAGTGTAATGTAAATGTTAAATG
[T, C]
ATTTGTCTTTAAAAATCTATTAGCACTAACTGACTGCATCGAGTATCCTAGAATTCAC
TAAGTCTTGCCAAGAAATTAAGGAGCTTCAGGAACTTGGTGTTCCAAAGCCCTTTACCCC
AGGTGGTAGCAAAATGAAATCATGAAAGTTTAAACCACTGCACAGCTTACAGATCTGCAG
GGTAGCTCTGCAGTTGCCTTGCAAGGATATAGAGAAGTTAATATCTCAAATATTTAGTAA
CATTATGCTAATGAGCCTTCCATAATAACCATAAATGGCTTTCACATGTTGTTTGT

130108 AAGTGTGCCAGTCATCCCTGTCTATCTGGCTGCCTCTAGTCGGCCATCTTGCCCTTCC
TCATGCTAAATTTTATTGATTGTGTCTTCTATTCCAGGCTTAATACAGTAGATATTTTTT
GCTGAGGTATGGTGTAGTGGTTAATTGCACAGATTAATAACACTCTCTCAATTCAAATTC
TAGTTCACAGGTAATACTCTGTATTACTTTGGACAAGTTACTTAACCTCTCTATGACTAT
AAAAAAAAGTACCTACTTCATAGAGTTGCTCTGCATTTAAGTGAGTTAATTCATGTAAG
[T, G]
GCTTACAAGCATGGGGTTATTACCTGCTAAAAATGTTAGCCAATGTGATTATTTAGCCTCT
TTTTCAGTTAAGGAAATATGCTTAACATTAATCATACATTGAAAGATGTTTATGTGCTGG
TTGTTGGGATCGAAAACACTGAAGAGGCTGTGAGCATTCCACAAAAAAGATC
AAAAGGTATTCACAGGGATCTGCTGGGAGGAGGATGAGGCAAGTGAGGCCCTTGACCCTG
TGGCAAAATTTCAATGGGACACCAAACTCAGAATCAAGATCAAATTTAATGCAATATT

132240 GCACCCTGTGCTAACACCACCACCAGCAGGACCACATGCACAGTTGCCAGTGAGGGCCC

FIGURE 3, page 125 of 141

CGGCTCCCTGAGCCATTCTGTCTCTGCTGCTGTGAATGCCACAAAGGAGACAGGCAC
 CCTGACACCTGCTAGCACCTTCCACAGCTGACAAGTCTGCACCCCTCCACACTGCCACT
 CCACCACCACTGCCGCTGCTGGCACATGCAAGCAAGGATGGATCTGTGCCACCATCCTA
 CAAAATGGTATGGCTGGCACCATCCATCAGAGTGTAGTGACCAGCTGTCCAGGAGCACAT
 [T,A]
 GGCCCCCCCAGCGCAATGAGTTGACGACCTTGAGGAGCCAGAGAGCAAAATGGGGCCCCA
 GTACAAGTCTCCAGAGTTAGAGCACACAGCCCAGGAGCTGGGAGCTGAGCACTGGCTGC
 CTAATAATTTCCAGAAACAAAACAGTCTACTGAATCCACCTTATAACACAATCAAACCC
 TCAAAGTTATCAAGTAGAATAAAAGGAAAAAACATCAAAGGATAGCATCTTCAAAGATT
 GAAGGAACCTCAGCCCACAAAGATGAGATAGAGCCAGTGCAAGAACTTCGAGAACTCAA

133120 GGCTCATGCCTATAATCCCAGCACTTTGGGAGGCTGAGGTGGGTGGATCATTTGAGGTCA
 GGAGTTTGAGACCAGCCTGGCCAACATGGGGAAACCCATCTCTACAAAAATACAAAAGT
 TAGCCAGGTGTAGTGGTATGTCCCTGTAATCCAGTTACCAAGGAGGCTGTGGCAGGAGA
 ATCGCTTGAACCTGGGAGGCGAGGTTGCAGTGAGCTGAGACAGCACCATTTGCACTCCAG
 CCTGGATGATGGAATGAGACTCCATCTCCAAAAAAAAGAAATGCAATCTCAAGTATTAG
 [C,T]
 ATCAGAATGGACCTAGCTGAGGAAAGAATCTCAGAGCTTGAAGACTGGTTTTCTGAAATA
 AGACAGTCAGGGAAGAATAGAGAAAAAGGAATGAATAAAACCTCCAAGAAATATGGGATT
 ATGTAAAGAGGTCAAATCATGTCCCTGAAAGAGGTGGGGAAAATTGAAGCAATTTGGAA
 AACACAGAAATACATTGCATAGAAACATAGAAATTTATCCATAAGAACCTCCCCAACCT
 AGCTAAAGAGGTCAACACTCAAATTCAGAAAATGCAGAGAGCCTCAGTAAGATACTTCAC

135891 CCCCAGCTTATTAGTTTTTGCTTGGCCTGTCTCAAGATGCTTTTGCTCTCAGTAGTGTA
 GTGATACTTTTATAAAATATTTGTTTAAATTTTCTGAACATGTTTGGGATGGGCTATATG
 AGGGGAATCTTTGTTATTTATAGGCAAAAAGGATCCACCTGCAGACTCTGAGGGCACTG
 TCAGAAGTACAGAAAATGACGCCAAGAGAAAGGATGCGGCTGAGGAAGCTCCAGGCGGCT
 GATGAGAAAGCCAGGAAGCTGAAGTAAGCTGCTTTTCTTTTAGGCACTCATGCTCGGGAC
 [T,C]
 ACTTCTCAGGGCTCTCAGGGAATTTACAGAGAAAAGCAAAAACCAAACAGGAAACCCCA
 ATGCATACGATTATGTATTTATGTGTTTATTCATTCACTTGTTCAGTCCAAGATGATTAT
 TGAGCCATAGATTGAATGTGAGGTGCTATTAATATCAGGCTTTCAGTCTTGTGTGAAGGG
 AAAGATTAACATTTTGGGAGGTTATTAGTGATGAAAATAGGGTCAGTTTCAAACGAAAT
 CTCATTGTTGTTGACAGCTTCTGCACATACCCAGCAGGAGACATCACTGTTTCACCCGG

136385 TTGGGAGGTTATTAGTGATGAAAATAGGGTCAGTTTCCAAACGAAATCTCATTGTTGTTG
 ACAGCTTCTGCACATACCCAGCAGGAGACATCACTGTTTCACCCGGATTCCCTAGGTGC
 TTGCTGCGTACCTTCTACCAGGAGACCTCACTTATTTATAGGAAGGAGACTTTATTGGCA
 GGAAATTGTTAGCTTTTGAAGAAGTAGACTGGAAACAGAGCTCTGTTCTGTCAAGTGAA
 GCATTTAGAAAAGTCTATGCTCAGGGCGATGTTGCTGGTGGGAGATATCACTAGTAATTA
 [G,C]
 AGTATTTACATGAAAAAGTGAAATTTTCAAGGTGTTAGCCAGGATGTAGAGAAAAGGGAACC
 CTTGTGCAGTAGTGGTGAGAATGTAATCAGTACAGCCATTATGGAAAAATAGCATGAAG
 ATTCTCTAAACATTAAAAATAGAACTACCATATGATCTGGCAATCCTACATTTGGACT
 TATATCCAAAGAAAATGAAATCAGTATATAGAAAAGATACTTATACTCCAATGTTCAATTG
 CAGAATTATTCACAGTAGCCGAGATATGGACTCAACCTACGTATCCATCAACAGATAAGG

137408 ATCTAAACATTTTTTGTCAATTAATTTTAATAAGCTGAAAAAATACATGTATAAAAT
 GGAATTTCAAAGAGGCTTAGAGCCTCAATTTCTGAAAGACTGATTTATGTGTTGGTAGGT
 TATCAAATTTCCAAATTTTTCTTATTTTTTCTTCTCTGCCAATATTTGGTAGTTTAGG
 AGCCCCAATCAAGAACTAGAGAGACAGAAAGAACCTGAACACAAATCTACGCATTTTGT
 CCCTTGTTAATTTATCCAAAAATGATTTAGAGGTGTCCTTGTACTTAGAATGAATATCA
 [C,T]
 GATAAGCCAAGTAAGAATCTATGAGTCTATTTTCCCGTAACATTTGCTTTCTTTAATAAA
 TTGGTAGAGAAAGATTTCCATGAAAGTACATTGTGAGCAGTGGTGTGCTGGTAAATATTT
 AACAAACAGCTCTGGGTTTGAAGGGGACTGCTTATTTGTTTGGCTGATTTCTGTGATATA
 ATACTCCACTGTGGCCAATATCAAGCTAACAATATGATACCATTTAATATTCAGTTGGG
 AAGATATTTACACAATCTGCTCTTGAGCCAATACAAGTTGGATTCTGCAAACCACTATGA

141673 GTTCAGGCCCCACAGACTGGATGGCTCAGCATCGCCAGGCATCCTGCCCTCTTTTGTGCAG
 TCACATCAGTCATTTCCCTCTGGCACATTGTGAGCATCCCATCTCTTTCAATTGTTTT
 CAGGAAAACCTTGTGAGCCCACTTGGGTCCACAATCAATGGACCCTCCTCCAAATCTTA
 TGGCTTATAGTATTTCAAACCTTGAAATGCACCTTGATTGCCTATGAATCTTGTTAAGAT

FIGURE 3, page 126 of 141

GCAGATTCTGATTCAATTAGTCCAGGGTGCAGCCTGAGATGTTGCATTCTTTTTTTTTT
 [-, T]
 ATTTTTATTTATTTTTTTTTTTTTTTTGGAGACGGAGTCTCGCTCTGTGCGCCAGGCTGGAGTG
 CAGTGGCGGGATCTCGGCTCACTGCAAGCTCCGCCCTCCGGGTTACGCCATTCTCCTGC
 CTCAGCCTCCCAAGTAGCTGGGACTACAGGCGCCCGCCACTACGCCCGGCTAATTTTTTG
 TATTTTTAGTAGAGACGGGTTTACCGTTTTAGCCAGGATGGTCTCGATCTCCTGACCT
 CGTGATCCGCCCGCCTCGGCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCC

141688 CTGGATGGCTCAGCATCGCCAGGCATCCTGCCCTCTTTGTGCAGTCACATCAGTCATTT
 CCCTCTGGCACATTGTGAGCATCCCATCTCTCTTCAATTGTTTTCAGGAAAACCTTGTC
 AGCCCACTTGGGTCCACAATCAATGGACCCTCCTCCAAATTCCTATGGCTTATAGTATTC
 TCAAACCTGAAATGCACCTTGATTGCCATGAATCTTGTTAAGATGCAGATTCTGATTCA
 ATTAGTCCAGGGTGCAGCCTGAGATGTTGCATTCTTTTTTTTTTTATTTTATTTATTT
 [T, A]
 TTTTTTTTTGAGACGGAGTCTCGCTCTGTGCGCCAGGCTGGAGTGCAGTGGCGGGATCTC
 GGCTCACTGCAAGCTCCGCCCTCCGGGTTACGCCATTCTCCTGCCTCAGCCTCCCAAGT
 AGCTGGGACTACAGGCGCCCGCCACTACGCCCGGCTAATTTTTTGTATTTTGTAGTAGA
 CGGGGTTTACCGTTTTAGCCAGGATGGTCTCGATCTCCTGACCTCGTGATCCGCCCGCC
 TCGGCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCCGGCGGATGTTGCAT

141736 CATCAGTCATTTCCCTCTGGCACATTGTGAGCATCCCATCTCTCTTCAATTGTTTTCAG
 GAAAACCTTGTGAGCCCACTTGGGTCCACAATCAATGGACCCTCCTCCAAATTCCTATGG
 CTTATAGTATTTCTCAAACCTGAAATGCACCTTGATTGCCATGAATCTTGTTAAGATGCA
 GATTCTGATTCAATTAGTCCAGGGTGCAGCCTGAGATGTTGCATTCTTTTTTTTTTTAT
 TTTTATTTATTTTTTTTTTTTGGAGACGGAGTCTCGCTCTGTGCGCCAGGCTGGAGTGCA
 [G, C]
 TGGCGGGATCTCGGCTCACTGCAAGCTCCGCCCTCCGGGTTACGCCATTCTCCTGCCTC
 AGCTCCCAAGTAGCTGGGACTACAGGCGCCCGCCACTACGCCCGGCTAATTTTTTGTAT
 TTTAGTAGAGACGGGTTTACCGTTTTAGCCAGGATGGTCTCGATCTCCTGACCTCGT
 GATCCGCCCGCCTCGGCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCCGG
 CCGATGTTGCATTCTTATAATCCCTCTGCTAATTCCTATGCTGCTGGTCTGTTCCCTAT

141982 TTATTTTTTTTTTTTTTGGAGACGGAGTCTCGCTCTGTGCGCCAGGCTGGAGTGCAGTGGCG
 GGATCTCGGCTCACTGCAAGCTCCGCCCTCCGGGTTACGCCATTCTCCTGCCTCAGCCT
 CCCAAGTAGCTGGGACTACAGGCGCCCGCCACTACGCCCGGCTAATTTTTTGTATTTTA
 GTAGAGACGGGTTTACCGTTTTAGCCAGGATGGTCTCGATCTCCTGACCTCGTGATCC
 GCCCGCCTCGGCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCCGGCGGAT
 [T, C, G]
 TTGCATTTCTTATAATCCCTCTGCTAATTCCTATGCTGCTGGTCTGTTTCCTATGTATAC
 CTTGATTAATAATGAATAGAAAATGGGCCTCCTGAAAGCAGCACTTCACCTCTAGATGAA
 GAAAGACTTGGAAAACCACTGCTGAACAGACTTTGTCTAATCTCTTTAGGAAAAACAC
 ATTTAAAGGAATGGAAGAAAAGGAGGAGCAACCTGAGGGAAGACTTTCTGTTTACCCC
 AGGACGAGGATGAAGAGAGGTGGCAAGGCAGGGAAGAGGCAAGTTAATCATATTACAA

150406 CAGCACCCACGGACATCTCAAAATAAGTAAACCGCCTGGGAAGGCTATATGTCATCCCAT
 GGATCATCACTTAGCTAAATATAAATCATATAGTAGTTATTATACTAAAGGTCATGCTAA
 TAAGGCAGAGGGCATCCTTAAGTGGCCTTGCTTGGGTATCATGGCTCAGATTTGGAACA
 AATCAATTAAGCAGAAAATTAATAAGTATCAATCATAGCTTTAAGGTTGGATAGAAACA
 AATGTAATAGAGTAAACCTTATAGAATGTGTGTTTTCAGACAGTGTCTGCATATACCAC
 [G, C]
 GTATGGTTTTCTTTAGTTGATGAATTTATTTCCATGCATGCAGGTTTCACAGTTGTGC
 TCCATACTTATGTGCTTACCACTTGGAGAACATTGTTATGATGGCCAAAGAAAGCTAAGC
 TGCCATATGAAAGGAATCTTTCAGATCTGCCTTTGAGTCTGACTTTCCCATGTGATTG
 CACTGTGATTTTAAGGAACATAATTTCTGTCTATCTGCAGTTTTCAAATTTGTTTTTCATC
 AATAAATGCAGTTAGTAATACCAATCTGAAAAATTTACTGTATTAAGTGAGACAACATG

150903 AACATAATTTCTGTCATCTGCAGTTTTCAAATTTGTTTTTCATCAATAAAATGCAGTTAG
 TAATACCAATCTGAAAAATTTACTGTATTAAGTGAGACAACATGTATTTGATATAACACA
 TATGTTAACATACAGTAACATACATGCTGTTACTGTATTTTCGCTCAATCAGTGACAGGA
 GCTATTACTACCAAAACAGATATAGAATGGTTAGATGGTGCTTATCACCTCTGTCTACT
 TGTTAGAATCGGACTTATCTTTTAAGACCCAGCTCAAAGACGTCTCTTGTATTGACGT
 [G, C]
 AGAAGATGTCTCTACCAGGACTCTTTGACTAATCTCCCTGATCATTTTTCTCCTTTCTT

FIGURE 3, page 127 of 141

AGAACATATCCTATGCTGCCTTACAGTACTGAGGTTGTGAACCTGACTGTTGCCCTAGCG
TAGGTTGAAAACTGGGATGTCTTTGTTAACAAGTCTTTGGAAAGCACTTTAAAAAGAAT
AGTAAGTAGTTATATTATAAAAAATTACAGACACAGGATGAACAACAACATACAAAAAAC
TATTCAAATATCACTCACGTGAATACAGTCATGTACTGCTTAATGACAGGAATATGTTCT

152612 GTTGTGGCAGTGTGATAGTATTAAGAGGTGGGGTCATTAAGAGGCAATTCACCTCATGAG
GACTCCCTCCTTATGAATGGGATTAAGTGCCCTTATCAAAGGGCTTGATGGAGTGAGTTC
ATCCCTCTTGTCTTCTACCTTCCACCATGTGAGGACACAGTGTTCCTTCACTGCAGAGG
ATCAAGCAATAATACGCCATGTTGGCAGCAGGGAGCAGCCCTTACCACACAACCGAACCT
GCTGTTGCCTTGATCTTGGACTTCCCAGCCTCCAGGACTGTGAGAAATAAATTTATGTTCT
[T, C]
TTATAAATTACCCAGTCCGTGGTATTTTGTGACAATAGCACAGATAGGCTAAGAAAAGGA
CAGAAGTGTACTGACAGTTTCTATGCAGATTTCAAGGAGAGCTTTATCTGAAAAATAT
GAGCTGGAAGTAAGGAGTTGCACAACCTCATAGTCATGACAAGGACACTTAGTCTGTATGC
ATGTGAGGAGTTTAAATAAATTGTATTTTCATGAAATTTTCAGAGTGGGAAAAAGCAGTAGC
TCTAAATATTTTATATAATATGGGAACATAAGTTTAAATTTGTTACTAAATTAACAATGT

153900 TGGGTGAACACTACTGATCTTACCACAACAGTCTATCTTAGTTACCTGACTCTGAAATTA
GGGTAATGAACAAAAACCAATATATAATTGAATCATGTGAAATTTATGTTCCAATTAGA
TAGAGAAACAAATACCTTTATTTCTTTTACAAAATAATATATTGACTTGTACCAAAATGAA
CTATTATAAAATAGGCTTATTTCTTCATATTCTATCATAAACTGATGACAAAAACAATA
TTTTATTTAGTTTTAAATTTCTTGATTAACCTAAAAAGCAAAATATAATTA AAAAGGA
[G, A]
TGAGCTATAAATCCCTTGTTACCTAGGTGAGCAGGCGTATTTGTTACAGCAGCAAGTGTA
GCCTAGCCTGACCAATACAATTGAGAAATATCATATTGTACTTTACAGAATCAAAGACAC
CATCAATTTTGGATGAATCATTTATATTATATATCATTAATAAACTACTGTCCATGAAA
TTATGATATGCCGTCTATTTTAAAGATGCATCTCCATTTTCAGAGGTGTTCAAATGTCAAT
ATATGTGAGGCATTTATTAAGTTGGTTCTTGAATCTCTTAATTCAGTCTATAATATGTAA

158595 GTAATCCTCCCAAGGCTCCTTGGGATGTGTCTGCCTAAGAACTACTGGGAATTAAGGG
TTGTATGAAGTATAGTCTGTATTACAGGTGCACACTTGTCTTCTTTGTTTGTATCAGTTA
GTCTCCCATGGAATTCATGACAGCACTTCCATATGACAGAACGTTAGCAAATATTGGT
TGAATCACTATTTTTTAATAACAGGCCTAGTAGGGCCATTACGTGAAAATATTTTTTTAG
TGGTGTGTTGACTGGATCCTCTGGAAGCAGATAATAGGACAGAGTTAGAAGTATAAGA
[G, T]
CTGTAATAGGGTAAAGTCTGTTGAAAGAAAACCTGATAGAAAGATTGGGAGTAGGCAGAGA
ACCTTCAGACTATGATGCAAGTCTGACACCTGTGAAAGGCAAGCAGGAAGGAAAACAGAC
TGGGCAAGAAGAGTCTCAGACAGCACTGGAGCTCTGAGACAGCCTCATTAGCCCAATGG
GTGGCTTTGAACCAGCTTTTACTGGTTCAAAGATTTCCCATAGAGGAATCCCATATTGGA
CAGAAATGCTATTCCCTACTGTCCCCACCAACTCAAATGCTCAACTGATCCCCAATATC

162718 ACCAAGGATTGCCAACAGCCACCAGAAGCTAGGAAGGAGGGGAGGCCTGGAACAGATTCT
TCCTCAGAGCTTCCAGAAGGAACCAACCTGCCAGTGCCCTGATTTTGGACTTCTGACCT
CCAGAATTGTGAGAGAATAAATTTCTGTTGTTTTAAGTCACCAAATTTGTGGGACTTCAT
TACAGCAGGCCTAGGAACTAAAACACTTCTTGTCTTAGTCTGTTTCAAGGCTGTTGTAACA
AAATACCATAGACTAGGTGGCTTATAAACAACAGAAATTTATTTATTACCATTCTGGAGA
[-, C]
TGGGAAATCCAACATCAATGCATTGGCAGATTTCAGTGTCTGGCAAGGGCCTATTTTCTGG
TTCATAGATGATGACTTCTCACTGCATCTTTTATAAGGGTACTAATCCCATTTCATGAAGC
CTCCATTCTCACAATCTCATCACCCCTCAAAGGCTCCAACCTCTAATATCATCACATTGG
TGATTACGTTTCAACATATCAATTTAGGGGAGACACAAACATTA AAACCAAACCATTTCC
TTTATTCACTTTAAAAACATAAACCTTTTATCTCATTTTGTATAGCAGTCAAGAGAAC

164528 AAAGGTGAGTTGGAAAAAGCCTTAGTGTACAGACTTCTTTAACAGCAGGAAATCAATTA
ATAGTATCTAAAAGTGAAACACATAGCCAATAAAGATACAATGACTGCAGCCTCTTCAC
ATTGTTATAAATTATTTCTTATCCTTACAGAGGTATGTTATTAACFAATATCTCTTGTG
GTAAAGGAACAATTATCTAAAGTTTCAGCAACTACTCAGTTTCAGTTTTTTCTTTGATAAT
TTCAAAAAATACATTTAATACCTAGAAAAATAATACTGTATTGATTCTCATTTGCCGCT
[G, A]
TAACAAATAATCACAACTTAGTGGCTTAAGCAATGCAAATGGACTCTCTTACAGCTCTG
GAGATTA AAAGTCCAAGATTGGTCTCACTGGGCTAAAATCAAGATGTCCTGGCCTGCAT
TCCTTCTGGAGGCTTAGTGACCTTGCTGTTTCCAGCTCATAGAGTCTCTGCATTCTGG
TTTGTGCCCTCCTTTCTATTTTCAAAGCTAGCAACACTGGACCAAGCCCTTCTGATGC

FIGURE 3, page 128 of 141

TGCCATCTCTCTGGTTCTCCCTCTTCTGTGCTGTGCCCTCTTCTATTTTAAAGGACTCTT

165214 TTAACCTCTGCTTTGCCATGTAAGATAACATATTCAAAAACCTCTGGGGATTAGGATGTGAA
CATTGTTTGGGGGTTATTATTCTGCCTACTACAAATACTCTGAATTCTGATAAAAAAAT
ACAAATGTTTAAAAAGAGAGTTAAGGACAGTCTTTTCAACAAATGATATTAGGAAGACTGG
ATATCTCATGCAAAAGAATAAAGCTAGACCCTTACCTCATACCAAAAATTTAAATTTAAA
TAGATCAAAAACCTAAAACCTATAAAAAACACATAGAAGAAAGCTCATGACATTGGATATGA
[C, G]
AGTAATTTATTGATATGACACCAAAAGTACCAGCAACAAAAGAAAACATAAACATGGATT
TCATCAAAATGAGAAATTTTATGTATCAAAGAACAGTATCAACATAGTAAAGTGGCAAC
CCACAGAACGGGAGAGAATATTGCAAAGCACATATCCAATAAGGGATTAATATCCAGAA
TATATAAAGAACCTCTTGAAAACAAACAAATCAACAGCCCAATTAAAAAATGGACAAA
AGATTTGAATAGAAATTTCTCCAAAGAAGATATACAGATGGCCAATAAGCACATAAAATG

166052 TTCCACATGTGATTATATACCCCTCCAAAATTGAAAGCAGGGTCTCAAAGAGATATTTGTA
TACCGATGTTACAGCAGCACTATTACCATAGCCAAAAGGTGAAAACAACCTCAAATGTC
CATTGATGGATGAATGGATAAACAAAGTATAACATACATACAATGGAATATTATTACGCC
TTGAAAAGGAAGAAAATTCTGATACATGCCACCATGTAATGAACCTTGAAGACATTATGC
TACATGCAATAAGCCAGACACAAGGGGACAAATATTGCATAATTCTGCTTTAATGAGCTA
[C, T]
GTATAGCAGCCAAAATCATAGAGACAGAAAGTAGAACTGTGGTTGTGAGGGTCTTGGGGG
AAGGAAGTAATGGGGAGTTATTGTTTCATGGTACAGAGTTTCCATTGGAAGATAAAAA
GTTCTGGACAGGGATGGTGGTGTGGTTGCACAACAGTGTGATGGTGTGGTAAATCGGCTG
GTGTCCCCAGCTACTGAATAAACTCTAGGTTAGCAGCTTTCAAACCTTTTGGCACCAGGA
CACCTTAACACGCTTAAAAATTGCTTGGGACACTGAAGAGCTTTTGTTTACATGGTTATA

170782 CTTAGGGATTCTTAGTCAGCCTAGGAAATCCAGCTAGTCCTGTCTCTGAGTACCCCTCT
CAACAGGAAAACCAAGTGCTGTTGGGGAGGATGGCCGATGACTGCTCTAACTGCTTCCT
GCTGAATTGGGGCGTAGTGGGGGTTATGCAGTTGAGATTTCCCTCTGGAGGGGTGCCTTCG
ATGTCATTAAACATCGGAGCATGGGCTAGCAGGCCGCTCCAGGGGTCTGCGGTAGATCTTA
GTCATGGACTGCGTCTGGGGCTCCATTGGAAGAACAATTTGTAGTTTGTAGAGCTTCAATT
[T, C]
TGGAAGAGACAACTTAACAAGGAGGTTAAAGATACAGGGATTGAAATGTATGGCCTGAA
GTGCAGGGGATTATTTCTTTGGGACACTTCACAGGCCCTGACTATCTGCTTGATAGTTTT
GAAAAGGCCTGGCCAGTAAATAATAATTTGGCCATCTGATGGGTACTATCAATGCCTAA
GTGGAAGGTTAGGTGAAGGGTTTTAAGTAATTTCTATTGGTTAGCTGCAGGCAAAATATT
TTTCCTTCTCTGGTGGCTAGCCATCTGGAGGGGAGGAAGTATGTCCTCGTGAGGTTCCC

171439 TACTAGGGGTCTTCTATAAGCATTCTAATGGAGGGTCTGCCTTGCAGCTCTTTTGAC
TTCAATATCTGCTTGGCGGTTCCCTTCTATTTCCTTTCCCTTTCTGATGATGATG
GCAGTGAAGACTGCCACCTCTTCAGGTTTCTGTACAGCCAATAATAATCTCCTAATGGC
TTCTGATGTTTGATAGGTGTTCCCTCGAAATTAGGAATTCCTTTCTCTCCATATTGCT
GCATGGGCATGGAGGACTAGGTAAGCATACTTAGAGTCTGTATATATATTTACCCTTTTT
[C, T]
CCTTCTCCTAATTCTAGTGCCGAGTGAGGGCTGTAGTTTTGCCAGCTGAGCACTAGTT
CCTGGAGTGAGGGGTTTACTTTCAAGTATTCCATTATCACTGACCACTGCATACCCTGCT
TTTCAAAGTCCTTTTCTACAAAGGAACTTCCATCAGTATACAAGCTGAGGTGCGGATCA
GTCAAGGGACCTCTAAAAGGTCCCTTCAAGTGGCATAGGTTTGAAGCAATTACTTGTGA
CAGTTACATTCTATCTTTTCTTATTGTCTGGAAGAAATGTGGCTGGGTAAAGAGTTGCA

175068 TTTGGTATTGTTTGGGAGGTATCATTTTAGTAGAAACAAAGGAAATGAGAGAGCAAACCTC
TGTACATACTAGGGGAAATGTTCTCTCTGACAGAAATGTGCCTCTCCTTTTACCCAGCA
TTTTCTTGTAGTAGTTTATCATCCAGAAATACCTCTACAACTTTGCAAAGTTATGTGTT
CACCACAACATTGAAGTGTGTAAGTAAATTTAGGTTGAGAGTTTATCATGAGTGGAGATT
TTTCTCTGAGCAAATGCTAAACAGCAGGTTGTAGGAATGTCCCTCCAGTCATTTTTTTTT
[-, T]
CTTTCTGGCAGGCATCCTGTATAACTACTCCAGACCAATTTAATGTTAATTTCTCATGAA
ATCCTACAGCACATGAGAAATGTAAATTCAGATTTTTATTATTTTATTTTATTTTATTTGAG
ACAGAGTCTCGTTCTGTCGCCCAGGCTGGAGCGCAGTGGCACAATCTCTGCTCGCTGCAA
TCTCTGCCCTCACCAGGATCAAGCGATTCTCTGCCTCAGCCCTCTGAATAGCTGGGATTGT
AGGTGTGCACAACCACCTGGCTAATTTTTGTATTTTTAGTAGAGACGGGGTTTACCA

178314 TACTACAATGCAAAATGTACAACACATCTATTTCTCCCTACTCATTAATAGGCCAAAAT

FIGURE 3, page 129 of 141

[illegible]

AGGTGGGAATTGAACAATGAGAACACTTGGTCACAGGAAGGGGAACATCACACACCGGGG
[A, C]
CTGTTGTGGGGCGGGGGGAGGGGGAAGGGATAGCATTAGGAGATATACCTAATGTAAATG
ACGAGTTAATGGGTGCAGCACACCAACATGGCACACGTATACATATGTAACAGACCTGCA
CGTTGTGCACATGTACCCTAGAACTTAAAGTATAACAAAAAATATATAAAAAAAGGA
AAAGAAAGATATTGTCTACCATGGGGGTGTGGGAGGTCTGTGAGCTTGCTTTCTCTGGG
CAAGGGGGTTGCCAGAAGGCTGGGGTGGGCATTTATTCAACCTGTGCATGTAGATATG

192900 CATTCTCAGCAAACCTAACACAAGAACAGAAAACCAAACTGCATGTTCTCACTCATAAG
TGGGAGTTGAACAATGAGAACACATGGACACAGGGAGGGGAACATCACACACTGGGGTCT
GTCAGGGGGTGGGGGACTAGGGGAGGGACAGCATTAGGAGAAATACCTAATGTGGATGAT
GGGTTGATGGGTGCAGCAAACCTGGGTGTAGCAAACCATCAGGACGCGTGTGTATCCATG
GAACAAACCTGCATGTTCTGCACATGTATCCCCAACTTAAAGTATACAAAAA
[-, A, G]
AGGAATAAGAGATTAGGACACAGGGACACCAGGGTATGCATGCACAGAGGATGACCTGT
GAAGAAGCAGCAAGAGGGAAGCCAAGGAGAAAGGCCCTCAGAGGAATCCAACCTGCTGGC
CCCTTAATCTCCAACCTCCAGAACTCTGGGAAATAAATTTCTATTGTTTAAATCACCCAA
TCTGTGGTATCTTCTCATTACAGCTCTGGCTGACTTAATACAGCAGCCAACATGCACAGC
AGCTAGCAGACGAGGGTGTGCCAATTATACTTTGGAGTGTGTCTGGGAAGAGAATTTGTG

193005 CACACACTGGGGTCTGTGAGGGGGTGGGGGACTAGGGGAGGGACAGCATTAGGAGAAATA
CCTAATGTGGATGATGGGTTGATGGGTGCAGCAAACCTGGGTGTAGCAAACCATCAGGAC
GCGTGTGTATCCATGGAACAAACCTGCATGTTCTGCACATGTATCCCCAACTTAAAGTA
TACAAAAAAGAGGAATAAGAGATTAGGACACAGGGACACCAGGGTATGCATGCA
CAGAGGATGACCTTGTGAAGAAGCAGCAAGAGGGAAGCCAAGGAGAAAGGCCCTCAGAGGA
[A, T]
TCCAACCTGCTGGCCCCCTTAATCTCCAACCTCCAGAACTCTGGGAAATAAATTTCTATT
GTTTAAATCACCCAATCTGTGGTATCTTCTCATTACAGCTCTGGCTGACTTAATACAGCA
GCCAACATGCACAGCAGCTAGCAGACGAGGGTGTGCCAATTATACTTTGGAGTGTGTCTG
GGAAGAGAATTTGTGTGGGGCATTGTATGTAGCCACTACCCCACTTACAAATGAGAACA
CCGTGACCCAGAGAAGTGAAGTAGCCACCTGAGGTACACAGCCAATAAGCAACGGGAGG

195888 CTGAACCTTACTTTTCTATCTGAAAAGTGGGCAGAAAAATGTCATTCTAGTCTACATTG
AAGAGTTGTGCAAAGATCAAATGGTATCTTTGTGCTATTAAATGGTATCAAATTTTGT
GGTATCAAATGTATATCAGCATGCTTTTAAACTGTAAAATGCACACAAATATAAAGATT
ATAACTTTGGGCTGCTCACCTTAGCTTTGTTCTTTTCTATCAACAAAATGGGAGTAGTT
GAATTACTTATACCTCTATGGAGATTTTAAAGTAATTTAGACAACCTAATAGCACAGTAACT
[C, T]
GAGCTCTTCTAAGGTAAAGTTTTTCTTACGTTTATGTTTTGTCTTTAACATACAAAGGTT
GAAATATGTAGAAATAGTATAAATCTTTTAGATTTTATATAGTGTATACTCTTATTGT
AACTAGTCACATTCTAGAGCAGTGATTCTGAGAGGGCAGCCTCAAACCAGCAGCATCAG
CATCAGCTGGGAACTTTGTGAGTAATGCAGATTCTCAGGTACCACACCAGACCTGCTGAAT
CAGCAAGTCTTGGGGTGGGACCCAGAGATCCGTTTTAACAAGCCCACAGGTGATCCTGAT

196643 TTCATAAACACATTCTGTTACTGCTTGCCTGGCATAACAGAAGATCTGGAATGCCACTCCA
GTATACCCATTATGAGGCTGACTTCAGGGTGCAAGGAAATTAAAGCTGTTATCAGACTC
TTTTCCCCTTAGTGACAGGAGAAAGGAATCTTAAGCTAAGAAGGCTTCAAGTTGGGTCTA
TGTATGAAAAACATGAGGCGTGACAAACACAGTTTGAACGGACTTACGTTTTTTTGA
TTTCCCTTTGAAAATGAAAATGAGTCCTTTTGTGGGCAGCACCAATTAGTGGTGCTTAC
[T, C]
TAAGAAATACTGGAGACAGATTCAATCCAGTTTGTTCATAACTTAGGTGGCAGAATGGC
ACTTTTCCCTGGCCACTTCTTCCCTTCTTCCCTTCTAGGAGGAAATCTAGGTAGGAGA
GGGAAAGGGACTAAGGCTGTCTGTACACAATGAGCTACGTTTTGGGAAGAGGAGCTTAGT
GTTTTAACAAAAGAAAGGTTTGTCTGTGTTGTAGAGATATGACTTGGTCCACTGCCTATG
TTTGTAATAAAGTTTATTGGGACATAGCCACACTCATTTATTTATGTATTGTCTGTTT

198793 AAAAAATCTTTTATACTGTATTTTACTGTACATTTTAAATGTTAAGATACACAAGTACT
TACCACTGTATTACAATTGTCTACAGTATTCAGTGTAGTAACATGCTGTACAGGGTTGTA
GCCTAGGAGCAATAGGCTATACCACATAAACATAGATGTGTAGTAGGTTATACCATCGAG
GTTTGTAAATAAGTACACTCTATGATGTTTACACAATGATGAAATCACCTGAATGACATAT
TCCTCAGAACATATCCTCGTTGTTAAGTGATGCATGACTTATTTCTTCTGGTGTGGGT
[G, A]
TTACAGGAAAACTACTGAGTGTGTTGCCCTATTGATACATACTTTGCATCCATTATACT

FIGURE 3, page 131 of 141

212346 TTCTAGAGATTGACTTTTCAGCCATGACCTGGAGGATGGAAAGGAGCCAGCCCTTGATGG
GACAAAAGGGAACCTGGGAGAAGAGTGCTTCACAGAGAGGGAACAGAGAGTGAGGGAAAGC
TCCAGGTCATGAAAACCTGGGCGCGTTCCAGAACTGCATAGTGAGCAAAAAGATCATAG
TGAGCAAAAAGATCTTGGGGATGATAGAGATATTCTTTACCTTGCTTTAGGTGGCATATA
CACAGGTGTATACATTTTTGAAAACCTCATAGAATTGTACCCTTAAGATCTTGCATTTTAC
[G, T]
ATGTGCAAATTTTATCTCAATAAAAAATAATGCATCATTAATAATTACATCAAAAAAGAA
AACTACAAAAAACTACAACAGAGTTGCAATATTCATGTAGATAGATGAGCTCTATAGG
TCTGCAGCCTGCATTGAGGCCACTTCCTGGCTGCTTGTGGACAGTGCCTGGCCACAGCTT
CAAGAAGGTCTGGATACACTCAAATGAAGCCTCTCAGGAAAAAAAACATGGGTCCAGA
GTGACTCTGGGTGAGGAGGGAAGAGAGGGTTTTGCATGATTTGGTGGGATTTACTT

216030 GAGGAAGGAGACTTGAAGAACATTTAAGTTCATCAACAAAGAAGCCGTTGTTATTTTCAC
AGCATTTGAAAATCTGGCTTCCCAGCACTTGGCTGAGATGACTGAAGGCTGGTGACACTG
TAATTTGGCATCTAGCAAGATGCAGTTACTCTCTCAGGCCACTTAGCTCCAGTAAAGTTC
AATTTAAATTATGAAACAGGGAAGAAATGCAAAAGTCCAATCAGCAGCATAATTCTCAA
TCACACTGGCCATAATATGCTCCTGAAAGATGTTTTCTTTGACTGAATCTTTGCTACGCC
[C, T]
GGCTGATTTTTGTATTTTTTAGTCAAGTCGGGGTTTTGACCATGTTGGCCAGTCTGGTCTTG
AACTTCTGACCTCAGGTGATCTGCCCACCTTGGACTCCCAAAATGCTGGGATTACAGGCG
TGAGCCACTGTGCCCAGCCATAAATTCCTAATTTTCTTAGTATAACCACAAACCTGAAA
ATAATTAATACTTTTCCAGATCATTAGGATGCTGTTTTGGATTATTTCAAGCCTGCTTG
GTGGAGGACAAATTTATTTTGTATTGAAGACAATATTTTAAATCAAATACAGTTCTGTGA

216597 AAGACAATATTTTTAATCAAATACAGTTCTGTGATTTCCCCAACCGTTATGGGGGAAGTC
TGACTCTTAATGAGGGTTAAGGTAAATGACGAGTGGTATTCTTAGATTTAGCACTCCTTG
AAGACCATACTTTCCAAAGAAGAGCTAGTTGTTCTCCAAGGGAAGAAATGCATTAGATT
TCTGCTGTATTGACTAAATTGTAAATGAATAAAATATTTCTTTTATTTCTAATAGCATTT
ACTATGTTTTATAGATTTAATATGTATTTATTTATAGATAATTTGGAAAAGACATAAGCACA
[C, G]
GAAGGAGACAATAAAGATCACTCATAATTTAATCTTTTAGTCAAACCACTGCTAACATT
TTTTTGTATGTTTTTGCATGACAGATAGAGCAATAAATCTAGAGATTGTTATGGAGAGA
GTGATGTAGATATACATAAAGTTATTTTTCTTTTTAAAAATAGGATTATACTGAAATAAT
TTTGAACAGATTTTTTTTTTCGCCATAATGTAGTAAGAACATTTTTCCATGTTATTAAG
TATCCTTCTACCATACAGGGAAAAATAACATTTCTCCCTATTTTGACAGGACAGTGATA

218212 CTTAGATTAGATGACTAATTTTCAATCTAGGCTCCTTAGAGACCTCCAGGATGAGGGGTT
GGTGGTACTAAGCAGCATGAGAACAGAAGCTGTGTCTGTACTGCTCATCTCTATTTTTCC
AGAGTCTAACACTGTGTCTGGTGCAGCAGAGGCTCTTAAAAATATTTTAAATATTTGT
GGTCGAAGGTGGTGGCTCACACCTGTAATCCCAACGTTTTGGGAGGCTGAGGTGGGAGGA
TCACTCGAGGTGAGGAGTTTGAGACCAGTCTGGGCAACATAGCAAGACCCCGTCTTAAC
[A, C]
AAATTTTTTAAATTCAGCCAGGCATGATAGCCTGTGCCTGGAGTCCTAACTCCATGGGA
TGCTGAAACTAGGAGATTCCTTGAGCCCAAGAGATTTAGGCTGCGGTGAGTTGTGATTAT
ACCACGTACTTTCAGCCTGGGTGCTAGAGTGAGACCTATCTCAAAAATATATATTATG
TTATAATTTCTATAAAGTAAAGGGGTACAGTGCAGTTTCTTACACAGATATATTGCACA
GTGGTAAAGTCTGGGCTTTTGGTGAATCATCACCTGAATATGGTACATTATACCCATTA

225907 ATCCGGGGACAATTTAAGCTTAAGTATGTCAGAGTATAAGCTTTTTCACTTCAAAATGAA
ACCTCTGTGAATTGAACTAGGCTTTACTCATGCTCATTATCTGCCTAGGCACTTTGGTAA
TGCCCAAGGTGCCTGCAGAGCATGTCAAGATATGTATGTATCTTCTACAAACATCTTCAAG
AGCTTCTTCTATCTCTTAACCAGAGAAGAAAGAAAAACAGACATACACATGTCTTTCTG
GTAATTTCAACCAAGAAATTTTAACTTCGAAACCTGAAAATGCTGTGTGTAGTGGCTT
[-, G]
ACCCCATTCCTGACCCCAATTTAGTTTTGAATTCCTACTTGGAACAGGGACAGTGATATTTT
TCTTTCTTACATCACAGATGAGTGGACTTAATGAATGAGTTAGCATTTGTGTGGCTTCAG
GAGATCCTGAAGATGACTTTTTGCATTTCAAGTTCAGTGTATTAGTCTCCTTTATAGCAT
CAAGGTGAGATTAAAGCCTTGAGATCAGTGATTTTCACTTGGGCATGCATCTGAATTA
CCTAGAGGGCTTAAATACAGGTTTGGTATGTGTCCAAGAATTTGTATTTCTGACAACCTT

229343 ATACTCAGTTGTTTTCACTTCTGAGCTTTTCACACTGCTTGATCCTTTCTAGAGAATGCT
TCCCTCCCGACTGCTTGGCAGCTCTACTTCTATCTTTCTATTCAATTCATTAAGTGATTA

FIGURE 3, page 133 of 141

TTGAAAAAAGTTGTATGCCATACTATGTGTTGGCCTCTGAGAATATTTTCAGTGAACAC
AACCTTGCCCTGCCCTCAGAACACCCAGAAATTACAAACCTTCTACTTCTCTGTAAAGCTT
TCCTTGGGTTGCCAACTGATTAGACCATGTCCAAATAAGGCAAATGCCAGCTGTAACCA
[G, A]
TAAAGCTGGTTCTATACCTCACTTCCATTTTCTATCGATAAATGCTGCTTGCCTGCAGAA
TAGAGTTCTCCAAACCTCTTGTGGTTCTGAGGGCTGTCCAATTCATAAATCATTCTTTGC
TTAAATAAACAGTTAAATTTGTCTCCAAAGGCTGGGAAGGAGAGAAGAGAGGAAGATAAG
AAGAGATTGGTCAATGAGTATAAAGTTAAATTAGATAGGAGGAGTAAATTTTCGGTATTC
TATTGCACAGTTGGGTGACCGTGGTTAGCAATATCATATTGTACATTTCAAATGGCTAG

230880 GTGCCACTATGCCTGGCTAATTTTTTTTTTTTTTTTGTATTTTTTGTAGAGATGGGGTTTT
GCCATGTTGCTCAGGCTGGTCTTGAACCCCTGGGCTCAAGTGGTTCACCTGACTCAGCCT
CCCAAAGTGCTGGGATTACAGATGTGAACCTACCATGTCCAGCCAAATTCATCTTACTGGC
AGAGGCTGGTCATATTTCTACACCCTAATTACATGGGAGACTGGTAAGTTAGTCTTCGGC
ATTCATGGCTTTAATGGGAGCCAGGCTCTGTCTCACAAAGTAAAGATTCCCCTTACAAG
[G, A]
GAAATGAGAATGTAAGGCCAAAAATAACAAATATTTACTATATTAATGAGCTCCACTGTT
GTAAGGATAGAATTTTAGGAATAACTAGAGATGTGAAAGGAGAGATGGCCCTTGCGGTGT
CTTGTGGAAACATCTCCTCTTTTGGCTTTCATAGAAGCTAAGGAGTACATGATACCAGGT
AATCATTTTTCAATTTATCTTCTGTCTGCTGACGATAGTGAGAGCTACATGCTTCCCC
GCAATTGTCAGGATTCACATTCTAATGAAAAGTGAGAACGCATCCTGGTGGTAATGTAA

230881 TGCCACTATGCCTGGCTAATTTTTTTTTTTTTTTTGTATTTTTTGTAGAGATGGGGTTTTG
CCATGTTGCTCAGGCTGGTCTTGAACCCCTGGGCTCAAGTGGTTCACCTGACTCAGCCTC
CCAAAGTGCTGGGATTACAGATGTGAACCTACCATGTCCAGCCAAATTCATCTTACTGGCA
GAGGCTGGTCATATTTCTACACCCTAATTACATGGGAGACTGGTAAGTTAGTCTTCGGCA
TTCATGGCTTTAATGGGAGCCAGGCTCTGTCTCACAAAGTAAAGATTCCCCTTACAAG
[G, A]
AAATGAGAATGTAAGGCCAAAAATAACAAATATTTACTATATTAATGAGCTCCACTGTTG
TAAGGATAGAATTTTAGGAATAACTAGAGATGTGAAAGGAGAGATGGCCCTTGCGGTGT
TTGTGGAAACATCTCCTCTTTTGGCTTTCATAGAAGCTAAGGAGTACATGATACCAGGT
ATCATTTTTCAATTTATCTTCTGTCTGCTGACGATAGTGAGAGCTACATGCTTCCCCCG
CAATTGTCAGGATTCACATTCTAATGAAAAGTGAGAACGCATCCTGGTGGTAATGTAA

231039 AGCCAAATTCATCTTACTGGCAGAGGCTGGTCATATTTCTACACCCTAATTACATGGGAG
ACTGGTAAGTTAGTCTTCGGCATTTCAGGCTTTAATGGGAGCCAGGCTCTGTCTCACAA
GTAAAGATTCCCCTTACAAGGGAAATGAGAATGTAAAGGCCAAAAATAACAAATATTTAC
TATATTAATGAGCTCCACTGTTGTAAGGATAGAATTTTAGGAATAACTAGAGATGTGAAA
GGAGAGATGGCCCTTGCGGTGTCTTGTGAAACATCTCCTCTTTTGGCTTTCATAGAAGC
[T, A]
AAGGAGTACATGATACCAGGTAATCATTTTTCAATTTATCTTCTGTCTGCTGACGATAG
TGAGAGCTACATGCTTCCCCCGCAATTGTCAGGATTCACATTCTAATGAAAAGTGAGAAC
GCATCTGGTGGTAATGTAAACTAGTACAACCCTATGGAAAACAGTATGGAGATTCTT
AAAGAACTAAATGTAGAACTACCATTCATCCAGCAATCTCACTACTGGGTATCTACCCA
AAGGAAAAGAGTCATTATATGAAAAAGATACTTACACATGCATGTTATAGCAGCGAT

231100 CTGGTAAGTTAGTCTTCGGCATTTCAGGCTTTAATGGGAGCCAGGCTCTGTCTCACAAAG
TAAAGATTCCCCTTACAAGGGAAATGAGAATGTAAAGGCCAAAAATAACAAATATTTACT
ATATTAATGAGCTCCACTGTTGTAAGGATAGAATTTTAGGAATAACTAGAGATGTGAAAG
GAGAGATGGCCCTTGCGGTGTCTTGTGAAACATCTCCTCTTTTGGCTTTCATAGAAGCT
AAGGAGTACATGATACCAGGTAATCATTTTTCAATTTATCTTCTGTCTGCTGACGATAG
[T, A]
GAGAGCTACATGCTTCCCCCGCAATTGTCAGGATTCACATTCTAATGAAAAGTGAGAACG
CATCCTGGTGGTAATGTAAACTAGTACAACCCTATGGAAAACAGTATGGAGATTCTT
AAGAACTAAATGTAGAACTACCATTCATCCAGCAATCTCACTACTGGGTATCTACCCA
AGGAAAAGAGTCATTATATGAAAAAGATACTTACACATGCATGTTATAGCAGCGATT
GCAAAAATATGGAACAGCATAAATGTTTCATCAACCAATGAGTAAAGAAAATGTGGTATA

231711 CACCATGGAACACTACTCATCCATAAAAAAGAACAAAATAATGGCATGCACAGCAACCTG
GATAGAGTTAGAGGGGCCATTATTTCTAAGTGAAGTAACTCAGGAATGGAAAACCAACAT
CATATGTTCTCACTTATAAGTGGGAGCTAAGCTGTGGGGACACAAAGGCAGAATGATATA
ATGGACTCTGGGACTCAGGGGGAAGGGTGGGAGGGGTGAGGAATAAAGACTACACAT
GGGGCACAGTACACACTGCTCTAGTGATGGGTGCACCCAAATCTCAGAAACCATCACTAA

FIGURE 3, page 134 of 141

[C, T, A]
GAACCTATCCATATAGCCAAAAACCACCTGTTCCCCAAAACTATTGAAATAAAATAAAA
CAAAAATTTTAAAACTTAAAAAAGAGAAGGAAGTACTGCTGATACACTTTCTCTAAGT
ATTTGAATCAGTCTTGAAGCCAGATCAACCTCCTATTACAGAAAAGCAGGTTTGTGTTTT
AAAGCTAAATTTCTTCATGTTGGCAGATAAGAATAATTAAACTCCCCAAACATTGGCTAG
TGTCTCCACAGGGAAAGCACAAATGAAAAAGTTAGGGTCTGGCTTCCACAAATCTCATCT

232431 GAATTTCCAAACTCCTTAACCTCTTGTGTTTTTAATCATCTATAAAATTCAGGTGAATAT
TTGCAGTGTGAAATAACCATAATAAAAAATATTTTATTTTCTATCTTCTGGTATTTATCAT
ATTTCTTATAAGTAGCAAGTTTGCTTTTCCCAAGTTGATCCACTTTTCCCAACTATTTA
ATTTTGGTGTAGGCAGTGGAGTCCTATTGATACACTGAGAAGCTGCTCCATGCAAAGCAT
TGTGGTGGACATCATGGGGAGGTAGTGTAATTTGCCTTGGGTCTTTGTAGCAATAATG
[C, T]
ACCTTTATATATAAGTTTAATATACATTTAAGCTTTACTAGAGCCATAGAAGATAGGATT
CTTTTTTTTGTGTCAATGAGGCAACTGAGTCACAGATTTTACCTTTCCAAACATCACAG
AATCAAGATTCAAACCAAGTCCTCTAAGCCAGCTCACATACTTGTCTAATATGCCCA
GCTCCCTTCCCTACTGGAAAGCATTGAGGTTGTTCTCTCCTAGACCATCTTCTTCTTTT
CCTCCTGTGCTTTTCTACTCCAGCATCCTAATGTGGTTTGGCATTGACACCGCTGATGCC

232503 ATAACCATAATAAAAAATATTTTATTTTCTATCTTCTGGTATTTATCATATTTCTCTATAAG
TAGCAAGTTTGCTTTTCCCAAGTTGATCCACTTTTCCCAACTATTTAATTTTGGTGTAG
GCAGTGGAGTCTTATTGATACACTGAGAAGCTGCTCCATGCAAAGCATTTGTGGTGGACAT
CATGGGGAGGTAGTGTAATTTGCCTTGGGTCTTTGTAGCAATAATGCACCTTTATATA
TAAGTTTAAATATACATTTAAGCTTTACTAGAGCCATAGAAGATAGGATTCTTTTTTTTGT
[G, A]
TCAATGAGGCAACTGAGTCACAGATTTTACCTTTCCAAACATCACAGAATCAAGATTCA
AACCCAAAGTCCTCTAAGCCAGCTCACATACTTGTCTAATATGCCCAAGCTCCCTTCTCTA
CTGGAAAGCATTTGAGGTTGTTCTCTCCTAGACCATCTTCTTCTTTTCTCTGTGCTT
TTCTACTCCAGCATCCTAATGTGGTTTGGCATTGACACCGCTGATGCCACAGGGTTGACA
ACAACCTCTTTGGCAGTGGCTTCTGCCCTGTACCAATAAAATCAATTCTCTGAAAGAGCT

233364 AGTGATGAAGGCCTGACAAGCCTTAGCCAAACCCTCAGAGAGCTCCAGTCCCATGGGTGT
TGCCAGCAAAGGCCATAATGGTTAGGTTCTCTACCTCTACCATGATCAGTCATTAAAGGT
TGCTACTTGGAGGGGCATGATTTGGGGGAAGGCAGCTTCTGAGGCTGAAGAATTTCTCTG
AAGGGGCCACAGCTGGAGGCTGTCTACTCCCAACAGCTGGGGTAGCAAGTTCTTCTCTCA
AGGAGGATCTGCATAGTGCATCTCCATTTCTGGGGTGTGAGGTGTGAGGTGAGGCAGT
[A, G]
CAGAGACTACCTGTTTTGCAGATTCTTCGACAGTTTTGTTGCCATTCTGATGTCCACTA
TTGTACAGGAGAAGCTCAAGGAAAAATCTTACCAAGTTTGTGTGAGCTAAGCCTCTCA
GCAGAGTAGAGCAGCTTTCACAGTGCCTGCTGATTCACAGCCCCCTATAATAAGTCATG
GGGCTGTCTGAGAGGTTGGAGAAATGAGATGGAAGACATAATGATCACCCCAAATTT
CAACCTTTTAGAGGGGAAGTTCTGTCTGATGATCTTATTTTTTTTTTAATTATCACATGAA

233423 TTGCCAGCAAAGGCCATAATGGTTAGGTTCTCTACCTCTACCATGATCAGTCATTAAAGG
TTGCTACTTGGAGGGGCATGATTTGGGGGAAGGCAGCTTCTGAGGCTGAAGAATTTCTCT
GAAGGGGCCACAGCTGGAGGCTGTCTACTCCCAACAGCTGGGGTAGCAAGTTCTTCTCTC
AAGGAGGATCTGCATAGTGCATCTCCATTTCTGGGGTGTGAGGTGTGAGGTGAGGCAG
TACAGAGACTACCTGTTTTGCAGATTCTTCGACAGTTTTGTTGCCATTCTGATGTCCAC
[C, T]
ATTGTACAGGAGAAGCTCAAGGAAAAATCTTACCAAGTTTGTGTGAGCTAAGCCTCTC
AGCAGAGTAGAGCAGCTTTCACAGTGCCTGCTGATTCACAGCCCCCTATAATAAGTCAT
GGGGCTGTCTGAGAGGTTGGAGAAATGAGATGGAAGACATAATGATCACCCCAAATTT
TCAACCTTTTAGAGGGGAAGTTCTGTCTGATGATCTTATTTTTTTTTTAATTATCACATGA
AACTCGTTATTTGGTTGTGGCACTTCTATGGGATGTTAGAGCACTCATTTGGGAGTCAGG

251180 CTCCACAGCCTTCCCCATTGTTACATAAGCAAAGGCAAGATCTAGTTAAGAAAGAACCTT
CCAGCTCAGTAAGTAGTGCCTGAAGGCTTACTTAGTGTGTGACAGTTTAAAGGATATCAGG
CAAATGACTTTGTCTCTCTCTATGAAGAAGTTGGGTGGCAACACACCTGGTGATCATG
CTGCCATCCTTCTCCAAGTTCTCTAAACTGGGGGCCCTGGGGCTTTGTAAAGTATTAATAT
ATGCCATGTCAGGCATAGAGTAGACCTAGCACAGTGGTCAGAAGGGAAGATGCAGGGGG
[C, A]
AAGCTGCTGGGATTTATATCCCTCCTTGCCACTGACTAATATGTGTCTTGGACAAGTTA
ACCAAACCTTTTGGGCCCTCAGATTTCTCATCTGTGAAGTGGGACTAATAATGATTTTTCG

FIGURE 3, page 135 of 141

260787 AGCCCTAGTATTGCCCACTCCATATGAAATAGCAGTTTTTTTCTGTCCATCTGTGCCCAT
GGAAGCTGGACTGCAGGGAAAGTAATCTCATAGGAGCAGGCATGCTCTTTGGTGCAGCC
AAGGATTGTTTCAGCAGACACAGAGATCCCTGCCCTCCAGAACAAGAGGTAAGGGTGTATCA
TGGAATGGGACCCATGGCCCACTTTATCTGTTTCAAGGATGGTCCAAAGATGTTCTTT
GTTTGTTTGTGTTTTCAGACAAGGTCTCACTCTGTATCCGGGCTGGGGTGCAGTGGT
[A,G]

261903 TTTGTCTGAGTGTGTTCTGATTTCATGCTGTTGATTTCAATTAAGGATATGACAAGAAA
TATTGTCACCTTCTGTATCATGCCATGTTTTTCAGGTCTTCCTCCTCCACATTGCAATGTT
CTCTTPTCTCTGCTGCCTTAGTATCTGGGAAGCTGTTTTTCCTGAGTAGCAGGTTTGT
TAATCCTAGGGTTTGAGTTGGTGAGCATACTGATCATCTTTCTGCTTTGGCCACTAGGA
ATCATAGAATCAAATTTACCTCTGTCTTCGAAGATTATATGGTATGCATTTCTTCTTTC
[-,T]

262224 ACGGAGTTCCTCTGTGTTGCCAGGCTGGAGTGCAATGGGGTGATCTAGGCTCACCACA
GCCTCCGCCCTCCAGGTTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGTACCTAGGATTA
TAGGCATGCACCACGTGCCTGGCTAATTTTGTATTTTGTAGAGATGGGGTTTCTCCA
TGTAGGTCTGACTTGTCTCGAACTCCCGACCTCAGGTGATCCACCCGCCTTGGCCTCCCA
AAGTGCCTGGGATTACAGGCATGAGCCACCGCGCCCCGCCTATATGGTATGCATTCTGTG
[T,C]

FIGURE 3, page 136 of 141

263740 CACCAGCAGTTAAAACACAGGGCCTTTGATTGAAGCAGACAACTGAGTGAGTTTTCCAGG
AGGTCTGAAGAAAGCCAACTCATTATCCAGGTCTCTGAACAGACAAATAATTATGAGACA
CTGAAATGTATTTTCCCATGCAAGTCAGAAATGGCTCAGCCTCTGTTTTGCACTGTTAAT
TACACTATTGGGCAGAGCCCTGTTACAGTTCTTGGTCATAGACTTACCCTTGATGCCTGG
CAGCATGGGTAGGAACTGAGCTAATGTGTGGTCTGACTTACATCAAATGTGTGCACC
[C, T]
TCACCAGTGTGAGGTCAAAAATGAGAGGCAAGAGGAATTTTCAGACATAGCAGGAGTGCCT
CTGCTGTTGTATCAGCTCGTAAGAGAAAAGAAGGCAGAATTATTTTGCCTGTATTTTGT
CAGCAGCAATGTTCTGATCTCAAGAAATTTGTGATGTTCTCCATGGTGAAAATCAGTGAAC
TAGCTGAGACTTGAGAGAAGCAGGGAGAATGCAGCTTACATAAGCCCAGGCTGCTACCCA
GGTCAGGGGTTCTGTCTCCTTTGTCTCTTGCCAAAGTCATTGTTGACTAGACAATTGTCA

283403 TGGATGTTGAGTAAATTAAGGAAGTGGGTCTTTTGCCAGACAGCCTGAAGAATTCTATAA
ATAAACTACCTTTTGTTCAGAAATAAGAGGGTAAAACATTTTATTTTAAAGGCACCT
GAGCTCAGGAGCTTGAGATCAACCTAGACAGCATAGCAAGAGTCATTCTTACTAAAAAT
AAAAGACAAATTAATCAAGCTTGGTGGCACATGCCTGTAGTCCCAGCTACTCAGGAGGC
TGAGGCAGGAGGATCGGTTGAGCTTGAGAGAGTGAAGCTGCAGTAAGCTATGATCATGCC
[A, C]
CTGCACTCCAGCCTGGGTGAGAGAATGAGACCATGTTTAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAACAACCTGTAGATATGATTACATGATTTCTTATTGCATTTTTCTAT
CGAAAAAAAAAGACACATGATTTAGACAGGATTCATTGGTTCACTGCCGATTTCCCAGCAC
AAAGTTCACTGCTCAATAAATAGCTGTTGGGTGAGTGAATAGATGAATGAATGAAATATG
AGGTCATAAAAAGTATTTATCTCTATTGTACCCTTGAGTCTCCAAAAGTTTGCTCACTA

285709 TGGGTAACGTATCTTAGGAAAATGTTAGAACCTGCCATAGTTACCAGGTATATATAGAAA
AGCTCGGAAGGCAACCAGGCCACAGTCACCCAAGAAGACATGGGTTTTGTCCATAAAAT
TGAATTGTCCAGAGAGGGCATGTAAAGCCAAAATGGGGAAGGTGGAGTTGGATGAGGA
TGTGTCATTGCCCTGAGATGTTAGGAGCACGGTCTTTAAGTCAGGGGAGACTTGGACTCC
GATTTTCTTCCCACTAAACAATTTTATGATCTTGGGCAGGTTGCTTTACCTCTTCAAGG
[T, A]
TTAATTTAGTCATCTATAAAATGTGGATAACAATGCCTGCTTTCCAGGGTTGAAATAATT
AGATAACACGTTAAGTGATTAGCATAATGGACTCATGGAAAGCCATGACCTTGGGGCAAT
GGGGGAGTGAGGGTGGGATAATCATTGTAGACATGAGCCATTTTACAGATGAAACAAGT
ATCTTCTAAGCTTCAACATATGTACAGAGAAGACCTAGAATCCAAATTTCTTGAGAACTA
GTCAGGCAATTTATGTATAGTGTGGGTACCAGGGTGAGTGTGGGCTCCAGGGCTCCTTC

288934 TTTCTGACTCTAGTCTTTCATGTTGTATATTACATCTTTAGACTATTTCATCCTACCTGCAA
CTGTGTATGCTTTGACTTACATCTTCCCATTTAATCCCTCCCCCAACAGCCACCATTCT
ATTCTCTGTTTCTATGTGCTGTATGCAATCTGTTTCTTTTTTTAGATTCCGATCATGCA
GTATTTTCTTTCTGTGTCCTGGCTTATTTCACTTAGCACAATGTCCTCTAAGTTTCATCCA
CGCTGTCAAGTGAGGAGGATCTCCTCTTTTAAAGCTGAATAATATTCCTGTGTGTGTG
[-, T]
GTGTGTGTGTGTGTGTGTGATTTCATCCATCAGTAAACACAGGTTGTTTCTATATCTTGC
CATGCTTCTTTTTTTTTTTTCTTCACTTTTAAAGTCCGGGGTACATGTGCAGGATGTGC
AGGTTTGTACACAGGTAAACATGTGCCATGGTGGTTTGTGTCACAGATCATCCCATCAT
CCAGTATTAAGCCCAGCATCCATTAGTTATTTTCTGATGCTATCCCTCCCCCACCACAA
CCCCGACAGGCCCCAGTGTGTGTTGTTCCACCCCTGTGTCCATGTATTCTCATTATTCG

288954 GTTGATATTACATCTTTAGACTATTTCATCCTACCTGCAACTGTGTATGCTTTGACTTAC
ATCTTCCCATTTAATCCCTCCCCCAACAGCCACCATTCTATTCTCTGTTTCTATGTGCT
GTATGCAATCTGTTTCTTTTCTTTTAGATTCCGATCATGCAGTATTTTCTTTCTGTGTCT
GGCTTATTTCACTTAGCACAATGTCTCTAAGTTCATCCACGCTGTCAAGTGGCAGGA
TCTCCTCTTTTTAAAGCTGAATAATATTCCTGTGTGTGTGTGTGTGTGTGTGTGTGTG
[-, T]
ATTTCATCCATCAGTAAACACAGGTTGTTTCTATATCTTGCCATGCTTCTTTTTTTTTTT
CTTCAACTTTTAAAGTTCGGGGTACATGTGCAGGATGTGCAGGTTTGTACACAGGTAA
CATGTGCCATGGTGGTTTGTGTCACAGATCATCCCATCATCCAGGTATTAAGCCCAGCAT
CCATTAGTTATTTTCTGATGCTATCCCTCCCCCACCACCCCGACAGGCCCCAGTGT
GTGTTGTTCCACCCCTGTGTCCATGTATTCTCATTATTCGGCTTCCACTTGTAAAGTGAGA

292710 TGCCAAATTGATTTCCATACTCCACAAAGATTTTTAATATAATCAATTTTTCTAATGTG
ACTTGTTATTAAGTCAATTTATTTAACAACTTTTACATTTGAAAGAAAATACTTATTA

FIGURE 3, page 137 of 141

ATGCCTACTGTGTGCTAAGCTCCCTTGGCACTCACTAGGCACATCATTACAAATAAGCAT
GATTCCTACTTTACTACTCAAAGTGTGATATTGGGCTGGTATGGGAAAAACAGACATTGA
AACACACAATTACACTGTGATGCAGTTCAGGCTGTCATAGAATTATGCCAGAGTGCCAT
[G, A]
GAGACTCAGCATGCTTATAGTATGATTGTAATAATTAACCAAAAAGGGACTACTTTGCTT
TGAAATATTCAAATACTCTCCACCTTCCAAGTAGAGTGGTGGTAACCTGGTGGTGGGTC
TGTAGGGGAAATATCTTCTCTTCTTACTCCTATCAGAGTTTACCTGACTGTGACAAGGAA
GTAGAAAAGAACTTGCCCTAATTTTTGGTGTCAAAGTCTAGCACCATTATATCTACCT
TTCTTTCACACATGCAAAAAATAATCTCCTTCAAGGACACATACATTATCTCTGAATCT

295600 TCACAATAGCAAAGACATGGAATCAACCTAGGTGCTCATCAGTGGGGGACTGGATAAAGA
AAATGTGGTAAATATACACCATGGAATATGCTGCAGCCATAAAAAAGAATGTAATCATGT
CCTTTGCAGCAACATGGATGCAGCTGGAGACCATTATTCTAAGCAAATTATGTAGGAAC
AGAAACCAGATACCACATGTTGTCACTTATAGGCAATGAAGACCACTAGAGGAGGGAGGA
AGAGAAGGGGAAAGTGTGAAAACTGTGAGTACTATGCTTGTCTATCTGGGTGATCGGG
[G, A, C]
CATTATATCCCAAACCTCAGCATCACACAATATACAGTATACCCATGTAACAAACCTGC
ACATGTATGCATGCCCCAAATCTAAATAAAGTTGCAATTATATTTTTAAAAAGCTAGT
TCATAGTTGTAACTACTTTCTAGAGTCTTGCTACTATAAATGTAATCACTGCTCAACATC
ACTAATCATCAGAGAAATGCAAAACCAGAGCCTGTGTTTCTCGAACTCTAATGTGTATATG
AAGAACTTGGGGTCTCATTAATGCAGATTGTGATTAGTAGGTCTGAGGAGGGGTGAGAG

295679 CATGGAATATGCTGCAGCCATAAAAAAGAATGTAATCATGTCTCTTTGCAGCAACATGGAT
GCAGCTGGAGACCATTATTCTAAGCAAATTATTGTAGGAACAGAAACCAGATACCACATG
TTGTCACTTATAGGCAATGAAGACCACTAGAGGAGGGAGGAAGAGAAGGGGAAAGTGTG
AAAACTGTTGAGTACTATGCTTGTCTATCTGGGTGATCGGGCCATTATATCCCAAACCT
CAGCATCACACAATATACAGTATACCCATGTAACAAACCTGCACATGTATGCATGCCCC
[T, C, A]
AATCTAAATAAAGTTGCAATTATATTTTTAAAAAGCTAGTTATAGTTGTAACACTTTT
CTAGAGTCTTGCTACTATAAATGTAATCACTGCTCAACATCACTAATCATCAGAGAAATG
CAAACCAGAGCCTGTGTTTCTCGAACTCTAATGTGTATATGAAGAACTTGGGGTCTCATT
AAATGCAGATTGTGATTAGTAGGTCTGAGGAGGGGTGAGAGATTCTGCATGTCTAAGCAG
CTCACATGTGATGCAATGCTGCTGGTGGGATCACGTTTCTTGGAGCTTCAGCAGAGCAT

296323 ACCCTGTGGGTACATACTGAGCACTGATGAAGAGGCCCCCGCTCCCCTTCATTGTCCTT
GCTCTCTCCTTTGTTGAATCTTCTCTTGTGTAATGGGATTAACAAACCCATGTAGAGA
GTCCACTGAATGGCAGAACCTTAGACTTTCCAGTTAGAGGAAACTTTGGAGATTATATGA
TCTAACTTGTTCCTCTCTCCCTGCATCACATCTTATGTCTGAAAGCCCATGCCTGAGAT
CCTACTCACTGAGTGTGCAGTTGTTATTCTCATCTCATTCCATCAGACCTAAGAAAGCTT
[T, G]
GCAGAATAAGGGCCTCTTGCAAAATGTTTCAAATACGTGGAAGTAGCTAGGACAAACAAA
CAAAACCATGTGCAAAATCACTCAGCAAAACCCACCTTAACGAGGAATTTTCTCTTTTG
GCTTCAGAAAGCAATTAAAAACTCAGCATTCTTAGGCAAAAAGCTTTAGCAGTTCCCTT
CTTGTCTTTTCTCACCACAGCAGGTGCTAAAGCACAGCTCAGTCTTGATTATCCCTTCT
GTCAGAGCAGGTGTGAGCTCAATTATTGTTTGGCAAATTCATTTCAGTCATTTAATGC

299119 AATATAACAACCTTATGATAAAGTTGGGATAATCATAAAAAGAGATTGCATACATTTGTT
TGCAATTAGGAACAGTCACCATAATTTAGTGGTAGCAAAGCTAATGTGAATTTGAAATC
TTCTTACTACCTGTCTGCAATTACAATGTACAAACATCAAAAAACAAAACAACTTCC
AGTGTACACACTGGTGAAAGAACCAGTCTAGATACCAGTCTCGAGTTGTTACTACTTA
ATTGCTATTGTTATTTATTTAAAATTTTACTGTGTGAGAAAAGTGTATGAAAACATA
[C, T]
AGTTAGCTAAAAAGTTGTGATTGGATGCCAGATTGATAAATGAGCAGTTTACTCTGCAAA
TAAGTGCAAACTCAGCTATGAGCTTTTCAAGTGGTCTAGACAACAAGAGAAACCTGCCTAC
TAGTTTCTTAGTAGACAACCTTATGATAAAGTTGGAATTGTGATGAAAAGACATTGCACA
CATTTGTTTGTGTTGTAGATTAGAAACAGAAGCTCTAATCTACAACCTCTCAGTAGGAGAGC
TGGATTTTTCTTGGCTCTAAATTTTGGGGAAGAATTAATCACAAGAATCCTTATGTAATG

300404 TTTTGGGAAAGTGATTAAGTTCATGAGGGCAGAGCCCTCAGGAATGGATTAATACCTTTAC
AAAAGAGGTCTCAGAGAGATAATTGCCCTTTTGGCCGTCTAAGCTTTCTCCCCCTCCA
GAGGACACAGCAAAAAAGTGCCATCTTGAAGCAGAGGGAGCAGCTCCCACCAGACAGCA
AATCTGCTAGCACCTTGACCTGGACCTTGGACTTCCAGCCTCCAGAACTCTGAGAAATA
AATCTAATATTATATAAATTACCTCTTCCATAGTATTTAAGCAGCACAAAGCAAATAAGA

FIGURE 3, page 138 of 141

[T, G]
GCCCTGCTTACCTGGGATTCCACAAGTCTCTGCCCAGATGGCCCCAAGCCCATTTCTACA
GTCTGTGAGCCTCTGCCTTGGTTCCCTTTGTCTGTATTGTGAGTTTGCAGACCCCTGGGA
AGCCCAAGGGTGGTCACACAGTGGCTGTTTGCAGAAGGTATGGATAAATATTAGACATAA
GGGCTGCAGTATCATATGTGTACAAGAACTTCTCTCAATGGGAGTTGGAGCCAGGCTGA
GAAGAGACGGGCACAGGCCAGGAGACAGGGATCAGGGACCCAAGGGCTGGCTTGCACAGC

303906 GTCTGGAGTTTtaggagagaagtGACAAGTGCATATTTGAGAACCAACAGTTTAAGGGAGG
ATTTAAAGTCATGAACTAGATGACCCACCTTGGGAGAGAATGTGGATAGAGGACAGAAG
AAGTCTAGGGATCAGGGAGATATGGAGGAACAAGCATAGTCAAATCAGAGAAGATCATTT
TGGGGAAAATATTGGAGGACCTTGTTAAGTTTCTTGGAGTCTTCTTCCAATTTCTTAAAA
TTTAAATCATCTATTTGAAGAGTCTGTCTCATCTGTTACTGATTTTTTCAGTTTTTTTGGT
[G, A]
ATTGACCTAATGCTCAGATCCTTTCTTATCAATGACAGCACAAAGATTCCAACATGGTTTT
CTTCACATAGTCCATTTTGTGTGCTGTAACAGAACACCACAATCTGAGTAATTTATAAA
GAAAATAAATTTGTTTCTCACAGTCTCTGGAGGCTGGGAAGTCAAATATCAAGGTGCCAGC
ATCTGGTAAGGGCCATCTTGCTACATCATCCCATGGCAGAAGTCGGAAGGGCAAGAGAGA
GGGGAAGAGAGAAGGAAGGGGGGGGGGCAAAATCATCTTTTATCAGGAACCCACTCC

304170 CTGTCTCATCTGTTACTGATTTTTTCAGTTTTTTTGGTGATTGACCTAATGCTCAGATCCTT
TCTTATCAATGACAGCACAAAGATTTCAACATGGTTTTCTTCACATAGTCCATTTTGTGTT
GCTGTAACAGAACACCACAATCTGAGTAATTTATAAAGAAAATAAATTTGTTTCTCACAG
TTCTGGAGGCTGGGAAGTCAAATATCAAGGTGCCAGCATCTGGTAAGGGCCATCTTGCTA
CATCATCCCATGGCAGAAGTCGGAAGGGCAAGAGAGAGGGGAAAAGAGAGAAGGAAGGGG
[-, G]
GGGGGCAAAATCATCTTTTATCAGGAACCCACTCCTACAATAACTAACCCTCCCATAA
TAACAGCATTAAATCCATTCTAAGGCAGAGCCCTCAAGACCAAATTAATCTTACAGGTC
CCACCTCTTAACACTGCTGCAATGGGAATTAAGTTTCCAACACATGAACCTTGGGGGACA
CATTCTGCACTATGTGACATCTGCAAGTTTTCAGTGCCATTTTAAATGAAGT
CAGTTTACTTTGCACTTGCACCTTGTGTTTACCCTGTACAGCTCACCGGTAACAGAACT

304657 TGCATATGTGACATCTGCAAGTTTTGTCAGTGCCATTTTAAATGAAGTCAGTTT
ACTTTGCACTTGCATTTGTGTTTACCCTGTACAGCTCACCGGTAACAGAACTCTAGT
GTGATGGACAGAGATAGAACTAGCATTGAGCAAGAGGCAGTTTTTCAGGGTGGACTAAT
TTTATACACAACCATTTATCAGTAGATATTTTTTAAGTTCTGATGCTTTAAAAATCCTTGT
AAATTTGGGGCTTGAGTAATGAATATTAGATGATAATGACCTTCCGGGTATCCATTA
[C, T]
CATTAGCAATGTCTCCAGTTTGTAAAGAATTAATAGATATTAATAATCAGAAGGAGGGCA
GCCAAGATGGCCGAATAGGAACAGCTCTGGTCTACACCTCCCAGCGTGAGCGACGCAGAA
TACGGGTGATTTCTGCATTTCCATCTGAGGTACCAGGTTTCTCTACTAGGGAGTGCCAG
ACAGTGGGCGCAGGACAGTGGGTGCAGCGCACCGTGCGTGAGCCGAAGCAGGGCGAGCAA
GGCATTGCCTCACTCGGGAAGCGCAAGGGGTGAGGGAGTTCCCTTTCTAGTCAAGAAA

304771 CTTAGTGTGATGGACAGAGATAGAACTAGCATTGAGCAAGAGGCAGTTTTTCAGGGTGG
ACTAATTTTATACACAACCATTTATCAGTAGATATTTTTTAAGTTCTGATGCTTTAAAAAT
CCTTGTAATTTGGGGGCTTGAGTAATGAATATTAGATGATAATGACCTTCCGGGTATCC
ATTAAACCATTAGCAATGTCTCCAGTTTGTAAAGAATTAATAGATATTAATAATCAGAAG
GAGGGCAGCCAAGATGGCCGAATAGGAACAGCTCTGGTCTACACCTCCCAGCGTGAGCGA
[C, T]
GCAGAATACGGGTGATTTCTGCATTTCCATCTGAGGTACCAGGTTTCTCTACTAGGGAG
TGCCAGACAGTGGGCGCAGGACAGTGGGTGCAGCGCACCGTGCGTGAGCCGAAGCAGGGC
GAGCAAGGCATTGCCTCACTCGGGAAGCGCAAGGGGTGAGGGAGTTCCCTTTCTAGTCA
AAGAAAGGGGTGACAGACGGCACCTGGAAAATCGGGTCACTCCCACCTAATACTGCGCT
TTTCCGACGGGCTTAAAAAACGGTGCATAGGAGATTATATCCCACTTGGCTCGGAGG

312311 TATGACATTCTGGAAGGCAAACTGAAGGAACAAAAACAGGTGAGTTATACCAAGGG
GTGGAGGGAGGACTTGGTTACAAAAGGATATGAGGGAATTCTGGAGTGTGATGAAATTGC
TCTGTATCTCAGTTGAGGTGTGAGTTAGATGGCTGAATGAGTTTATCCAACTCATAGAG
CTGTACATTCAAAAGAAGAAATTTTGTATATATATTTTTTTATCAATTTAAAAATATA
TAAAAATAAAGAGGGAATCCCAAGATGAAATAAAAAACAAACATTCTGGGACTTAA
[G, T, C]
AGACTCTTTGAAAAACAAGTTTTCTTCTATTTTCCCCTCCTTTCCCTGAGAAAGAATTAC
TCATGATTGAAAGCCCTTAAAAAGAATTTGCTTACTCAGATATTATTTTAAAGGAGTG

FIGURE 3, page 139 of 141

AAATTCATGACTCACAAAGTGTCTATTTTCTTCTGGCTTTAAGTCATTTTTTACTTCAT
TTTTTCAACAAATAATTATCGATCACCTATAAGCAAAGAATGTCTTCCTGAGCTCTCACT
TATAATTGAACATTTAGAGCTGAAGGAATCCTTAGAAATCAGTTAGTCTACATTGCAGAT

313434 ATCCTTTAGGCTAATACATAAAAGGATGGATGACCAGAGGGTAAGAGCTGGTAAATCCCCA
AAGGCGTGAGCAATGCAAATTGAGGGACATTCTAGCATCCAGATCATTGAAGGAACTAA
AGAGACATGACAAGTAAATGGAACCTCATGATTATTTTGAATGCTTTGTTATCAGGCAGTG
TTATTGGACAATTGGGGGAAATCTGAATGTTTCCATATACAAGATAACAGAATCAGATCT
ATTAATGTGAATTTCTGATTCTGGTGGCAGTTTGTGGTTATGTAGAAGTGTTCCTTATT
[T, C]
GTACAAAATACACACAAAGTATGAGTGGGGGACATTGGGGTAGCAACTTATTCTCAAAG
ACTCAGGGGACAAAATAGTTCTTTATACTATTCTGTAACTTTTCTGTAAAGTATGGGATTC
AAAATTAATAATATTTTAAAATATGAGGACATTTTAGATATTATCCTTATAAACTAAG
CAGCTATGGCTGTATTCTTTAGAGCCCTTATTAGATAGAGATAAATAATTAGAGGGTACA
CAGCATAGTCTATAATTGATGGGCAAATAAGTAGATGTGATAAAATGTATTTTTTTATAA

313997 GCAAATAAGTAGATGTGATAAAATGTATTTTTTTTATAAATGAAAGGTAAGCACAGGAAGA
GGTAATAAAGGAATTTGGAGGATGAGAGATTGAGTTTGGAGGAAATGGGCAGGGGAGAGA
AGAAGAGCTTTCTTGGTGTTTAATAGTTTTCATCAGCAAGGGAGTCAGCCAAACACGTA
TTCGGGATGTGACCCCAAGCAGTTCAAATTTTGGAAACATTAGGGAACCTTCCTTCAGGAC
TCCTGTGTCAAGGACCATTATCCAGCCCAACGAGCACTGTCTGAGAGTCTGAAACCT
[-, G]
GACTCTAGTCCCCTATTTGTCCCCAACTGCCAATTCAATCTTGGGCAAAACAACCTGTAA
ATGAAGTATTTGGACTAAAATGATGTTTGACAATCCCTAAAAAACTTAAAGGCTTTTGT
TTCTTGAAGAAAATGATAAAATTTAGAAAGGAAATGCACCATAGAAAGAAATAGAAAACA
ATGAAAATATAAATCTTTTTTATTTGAGATACCCAGCTAACTAAAGGAATAGTTCCTGCC
ACCCCATGTCCCTCTCTTTGAAAAAGGAAACATAGGAACCTCTTTAATTTGAACAGCACA

322343 CAGTTTCTTCATCTGTAAAATAGGGATTTAAAAAATGCCTCCTTCGTACAGCTGTTGTA
AAGGTTAAGTGTGATTGAAAGGGCAAAGTGAGTAGAAAAGGACCTGGCAAGTGGCAAACA
AAACTATTCTCCCCCTCATTTTCCCTCCTCCTCCTCATTATTATTTTGTATTATTAA
CTATTTCTGCATTTTATATCCACCATCCTGTTTCCCTTTGTTCTACTAACCAGCCAC
AATAGCTTTCTTGTATTATTTTCCAATATGTTTTAGCCTTAGGGCCAAAATCTTTTGCC
[T, C]
TAGTATTTGTCTTACTTCCTGAGAGCTTTTGCTCAAATGACACTTCCTCAGAAGGATTTT
CCTGTCCGCTCACCTGCTTTTCTTCATTGCACTTAGAACCATCTGATATCTTATGTG
TATATGTGTATATACATACGTTTATATAAACACATCTGTGTGTATATCTGTGTATTAT
ATATATATACACACACAAGGGCAGGACTTTGCCTAACTTGTTTACTGCTATATCCCAGT
TCCTTGAAGGGTACCTGGCACATAATAGACATTGAGGCATTATTTGTTGAATACTGTTAA

322893 GGTACCTGGCACATAATAGACATTGAGGCATTATTTGTTGAATACTGTTAAATGTTTAGG
GTGGAGATATTGTGCCCTTTTCTTCCCCCTTTTTTCTAAATCCCAGAATGACAATGTTTG
TAAATCAATGATTTAAAGCACATTTTCTGCAAGTGATCTTAA'TGTGTAACCTTTTGT
AATCTTTTGTAACTTTTGTACAGATCAGCCATGCAGAAGCTGGGGACAGAAGTATTTGA
AGAGGTCTATAATTACCTCAAGAGAGCAAGGCATCAGAATGCTAGCGAAGCAGAGATCCG
[C, T]
GAGTGTGTTGGAAAAAGTGGTGCCTCAAGCCAGCGACTGTTTTGAAGTGGACCAGCTCCTG
TACTTTGAAGAGCAGTTGCTGATCACGATGGGAAAAGAACCTACTCTCCAGAACCATCTC
TAGGCAACTATCAAAAAGAAGCAGAAGTCAAGTGGACAAATTTATGTGAAAATTCATTT
AACATATAAGCTGAACCTATTATGTTGGGAATGGATACAAAAGCAGAGCTCCCATCTTGAC
TTTCAATTCTCATCAGAAGTACTGGCTTCTTTAGAGAGTAGTAAGCATGGCTGCCATG

322905 ATAATAGACATTGAGGCATTATTTGTTGAATACTGTTAAATGTTTAGGGTGGAGATATTG
TGCCTTTTCTTCCCCCTTTTTTCTAAATCCCAGAATGACAATGTTTGTAAAATCAATGA
TTTAAAGCACATTTTCTGCAAGTGATCTTAATGTGTAACCTTTTGAATCTTTGTAA
CTTTTTTGACAGATCAGCCATGCAGAAGCTGGGGACAGAAGTATTTGAAGAGTCTATAA
TTACCTCAAGAGAGCAAGGCATCAGAATGCTAGCGAAGCAGAGATCCGCGAGTGTGGA
[A, G]
AAAGTGGTGCCTCAAGCCAGCGACTGTTTTGAAGTGGACCAGCTCCTGTACTTTGAAGAG
CAGTTGCTGATCACGATGGGAAAAGAACCTACTCTCCAGAACCATCTCTAGGCAACTATC
AAAAAGAAGCAGAAGTTCAAGTGGACAAATTTATGTGAAAATTCATTTAACATATAAGCT
GAACCTATTATGGGGAATGGATACAAAAGCAGAGCTCCCATCTTGACTTTCAATTCCTC
ATCAGAAGTACTGGCTTCTTTAGAGAGTAGTAAGCATGGCTGCCATGCTTGGAGTCATA

FIGURE 3, page 140 of 141

325770

TTGGAAGGTGGTATGAGGACTTCCAAGAAGGGTCCAAAGACTTCAAATGCTTACAGTGA
ATATAAGCAAGTAGTGACTGGGGTGGAGTGGTAGGTGAGTCAGTGTGAATAACTTGAGAG
AACTTAATGGGCTTATTTTAAGGACAAAGGGGCATGGCCACTGTGCCCTAACACTCTATC
CTGTGGCTTCACTTCTATCCCTGCCCAGCAACCAAGGAACCCAGGTGAACCCACAA
TTTCTCTAGTGCTCAAGGGTTATGAACATCACTCTTCTGAGTCCCACAACCTCCCTTACA
[T,C]
TATAGAGAGGTTTTGGGGGCTGCACAAAACCTTCATTCTGCCTCTTCCCAAAGCTAATGAT
GCCCATTTCTACCCCTCTCTCCCTGCATACTGGAGAATTATTCCTGGCTGGGAGGCTGGGG
GTCAGGAGCATGTCTGTGCTCTCACAGCCCCTGTGTCTGCAGCAGGAAAAGCAGACCTCA
AATACTGCTTCTGGAGGTGGGATCTGAGACTTTTCAGAATTGGAACCTTGAGTGTGTTTC
CCAG

004024" F63E/60